SAMSUNG

SPLIT-TYPE AIR CONDITIONER

Basic : SH18BW6/SH24BW2
Model : AQB18J6WC/AQB24J2WC
Model Code : AQB18J6WC/AQB24J2WC
UQB18J6WC/UQB24J2WC

SERVICE Manual

AIR CONDITIONER

AQB18J6WC/AQB24J2WC

UQB18J6WC

UQB24J2WC

THE FEATURE OF PRODUCT

- **Energy Saving Function**
- **High Impressive & Elegant Design**
- **Sliver Nano Pre-Filter**
- **Multi Functional Cleaning System**
  : The Chatechin filter and activated Deodorizing filter are adopted.
- **Human Touch Remote control**

For more information, Please access to our service web site(http://itself.sec.samsung.co.kr)

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1. Precautions

1-1 Installing the air conditioner

- Users should not install the air conditioner by themselves.
  Ask the dealer or authorized company to install the air conditioner except the window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.
- You must install the air conditioner according to the national wiring regulations and safety regulations.
- Install the indoor unit higher than 2.5m from the floor to avoid the injury caused by the operation of the fan.
  (except the window-type air conditioner)
- The manufacturer is not responsible for any accidents or injury caused by an incorrect installation.
- When installing the built-in type air conditioner, keep all electric cables such as the power cable and the connection cord in pipes, ducts, or cable channels to protect them from the danger of impact or any other incidents.

1-2 Power supply and circuit breaker

- If the power cord of the air conditioner is damaged, it must be replaced by the manufacturer or a qualified person in order to avoid a hazard.
- The air conditioner must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker.
  An all pole disconnection from the power supply must be incorporated in the fixed wiring with a contact opening of >3mm.
- Do not extend an electric cord to the air conditioner.
- The air conditioner must be plugged in after you complete the installation.

1-3 During operation

- Do not repair the air conditioner at your discretion.
  It is recommended to contact a service center directly.
- Never spill any kind of liquid on the air conditioner.
  If this happens, turn off the air conditioner and contact an authorized service center.
- Do not insert anything between the airflow blades to prevent damage of the inner fan and consequent injury.
  Keep children away from the air conditioner.
- Do not place any obstacles in front of the air conditioner.
- Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.
- Make sure that the air conditioner is well ventilated at all times:
  Do not place a cloth or other materials over it.
- Remove the batteries if you don't use the remote control for a long time. (If applicable)
- Use the remote control within 7 meters from the indoor unit. (If applicable)

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1-4 Disposing of the unit

- Before throwing out the air conditioner, remove the batteries from the remote control.
- When you dispose of the air conditioner, consult your dealer. If pipes are removed incorrectly, refrigerant may blow out and cause air pollution. When it contacts with your skin, it can cause skin injury.
- The package of the air conditioner should be recycled or disposed of properly for environmental reasons.

1-5 Others

- Never store or load the air conditioner upside down or sideways to prevent the damage to the compressor.
- Young children or infirm persons should be always supervised when they use the air conditioner.
- Max current is measured according to IEC standard for safety.
- Current is measured according to ISO standard for energy efficiency.

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2. Product Specifications

2-1 The Feature of Product

■ **Energy saving function**
Makes a room cool with and energy saving and arises the efficiency of air conditioner.

■ **High impressive & elegant design**
With a Smart and fashionable style, the high impressive interior design allow this product to set place in anywhere.

■ **Silver Nano Pre-Filter**

■ **Multi functional cleaning system**
With a Chatechin filter and activated Deodorizing filter, it removes an allergy antigen as well as a tobacco odor.

■ **Human touch remote control**
The use of air conditioner is easier and more convenient by the human touch remote control of new design.

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2-2 Product Specifications

Item				Model	AQB18J6WC		AQB24J2WC	
					Indoor unit	Outdoor unit	Indoor unit	Outdoor unit
Performance	Type				Wall-mounted		Wall-mounted	
	Cooling(Min/Std/Max)			Btu/hr	5,500/18,000/21,000		6,500/24,000/27,000	
	Heating(Min/Std/Max)			Btu/hr	5,100/20,500/30,700		5,800/27,000/35,000	
	Dehumidifying				2.7		3.8	
	Air Volume	Cooling		m^3/min (H/M/L)	12.6/10.2/8.5	44	13.8/11.5/9.1	53
		Heating			14.4/11.4/10.2	44	15.3/12.5/10.3	53
	Noise	Cooling		dB	48/33	58	48/35	60
		Heating			48/33	58	48/35	60
	Energy Efficiency Ratio	Cooling		Btu/hr	10.59		9.23	
		Heating			11.08		9.64	
	Power			ph-V-Hz	1-208/230-60		1-208/230-60	
Power	Power Consumption	Cooling		W	500/1,700/2,200		590/2,600/3,150	
		Heating			450/1,850/3,200		580/2,800/3,400	
	Operating Current (Min/Std/Max)	Cooling		A	2.8/7.5/10.0		3.3/12.0/13.8	
		Heating			2.6/8.2/14.5		3.0/13.0/16.0	
	Power Factor	Cooling		%	94.3		94	
		Heating			94.5		95	
Size	Outer Dimension	WidthxHeightxDepth		mm	1,065x298x218	880x638x310	1,065x298x218	880x798x310
				inch	41.9x11.7x8.6	34.6x25.1x12.2	41.9x11.7x8.6	34.6x31.4x12.2
	Weight(Net)			lb	28	110	28	125
	Drain Hose			DxL(inch)	ø0.7"x36.2(920mm)		ø0.7"x36.2(920mm)	
	Compressor	Type			Rotary, G8T200FU1EW		Rotary, G8T260FU1EW	
		Motor	Type		Hermetic		Hermetic	
			Rated Output	W	1,852		2,454	
	Oil Type				POE		POE	
	Blower	Type			Cross-flow	Propeller	Cross-flow	Propeller
		Motor	Type		Resin/steel	Resin/steel	Resin/steel	Resin/steel
			Rated Output	W	50	100	50	100
Piping	Refrigerant Pipe	Liquid		D(inch)xL(ft)	ø1/4"(6.35mm)x24.6(7.5m)		ø1/4"(6.35mm)x24.6(7.5m)	
		Gas		D(inch)xL(ft)	ø1/2"(12.7mm)x24.6(7.5m)		ø5/8"(15.88mm)x24.6(7.5m)	
	Connection Method				Flare			
	Between	Height		ft	Max.49(15m)			
		Pipe Length		ft	Max.98(30m)			
Heat Exchanger					2ROW 16STEP	2ROW 28STEP	2ROW 16STEP	2ROW 36STEP
Refrigerant Control Unit					Electric Expansion Valve		Electric Expansion Valve	
Freezer Oil Capacity				gal	0.185		0.185	
Refrigerant to Change(R410A)				lb	3.2		3.6	
Protection Device(OLP)					None		None	
Cooling Test Condition					Indoor Unit : DB80°F WB66°F Outdoor Unit : DB95°F WB75°F			
Heating Test Condition					Indoor Unit : DB68°F WB59°F Outdoor Unit : DB44.6°F W42.8°F			

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2-3 The Comparative Specifications of Product

Item		AQB24J2WC	SH24BW2 (Basic)
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	28 lb	28 lb
	Outdoor Unit	125 lb	125 lb
Outer Dimension (WidthxHeightxDepth)	Indoor Unit	41.9x11.7x8.6 inch	41.9x11.7x8.6 inch
	Outdoor Unit	34.6x25.1x12.2 inch	34.6x31.4x12.2 inch
Noise	Indoor Unit	48dB↓	48dB↓
	Outdoor Unit	60dB↓	60dB↓
Air Purifying System	Filter	Silver Nano Filter Bio Filter Deodorizing Filter	Silver Nano Filter Bio Filter Deodorizing Filter

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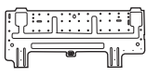
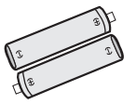
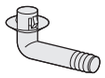
2-4 Accessory and Option Specifications

2-4-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Plate	DB70-00505A	1	Indoor Unit
	Remote Control	DB93-03012K	1	
	Batteries for Remote Control	DB47-90024A	2	
	User's Manual	DB98-25865A	1	
	Installation Manual	DB98-25864A	1	
	Service Manual	DB98-26005A	1	
	Drain Plug	DB67-20011A	1	Outdoor Unit
	Rubber Leg	DB73-00179A	4	
	3-wire Power Cable	-	1	Accessory Box
	2-wire Assembly Cable	-	1	

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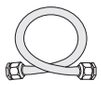
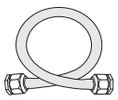
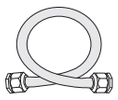
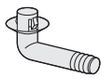
Accessories(cont.)

Item	Descriptions	Code-No.	Q'TY	Remark
	3-wire Assembly Cable	-	1	Accessory Box
	Assembly Pipe, ø1/4 inch(6.35mm)	DB96-10453B	1	
	Assembly Pipe, ø3/8 inch(12.70mm) : **18**	DB62-70003E	1	
	Assembly Pipe, ø5/8 inch(15.88mm) : **24**	DB96-10221C	1	
	PE T3 Foam Tube Insulation	DB72-50165A	1	
	Vinyl Tape, Width 2 inch(50mm)	DB72-00459A	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-00179A	4	
	Pipe Clamps A	DB39-20224A	3	
	Pipe Clamps B	DB39-20224B	3	

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Accessories(cont.)

Item	Descriptions	Code-No.	Q'TY	Remark
	Cement Nail	-	6	Accessory Box
	M4x16 Tapping Screws	6002-000215	10	
	Drain Hose, length 78.7 inch(2m)	DB62-00487A	1	
	Putty 3.28oz(100g)	DB98-10568A	1	

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3. Alignment and Adjustments

3-1 Indoor Display Error and Check Method

Description	LAMP			Main Checking Point
	OPERATION	TIMER	TURBO	
	≋	⏲	TURBO	
Indoor unit room temperature sensor error (open or short)	○	◑	○	3-2P
Indoor unit heat exchanger temperature sensor error (open or short)	◑	◑	○	3-3P
Indoor fan motor malfunction	○	○	◑	3-4P
EEPROM error	◑	◑	◑	Option Setting
Option error (option wasn't set up or option data error)	◑	◑	◑	Option Setting
Outdoor unit error	◑	○	◑	Remote Control on/off Outdoor Unit Power Reset

● : Lamp on, ○ : Lamp off, ◑ : Lamp blink

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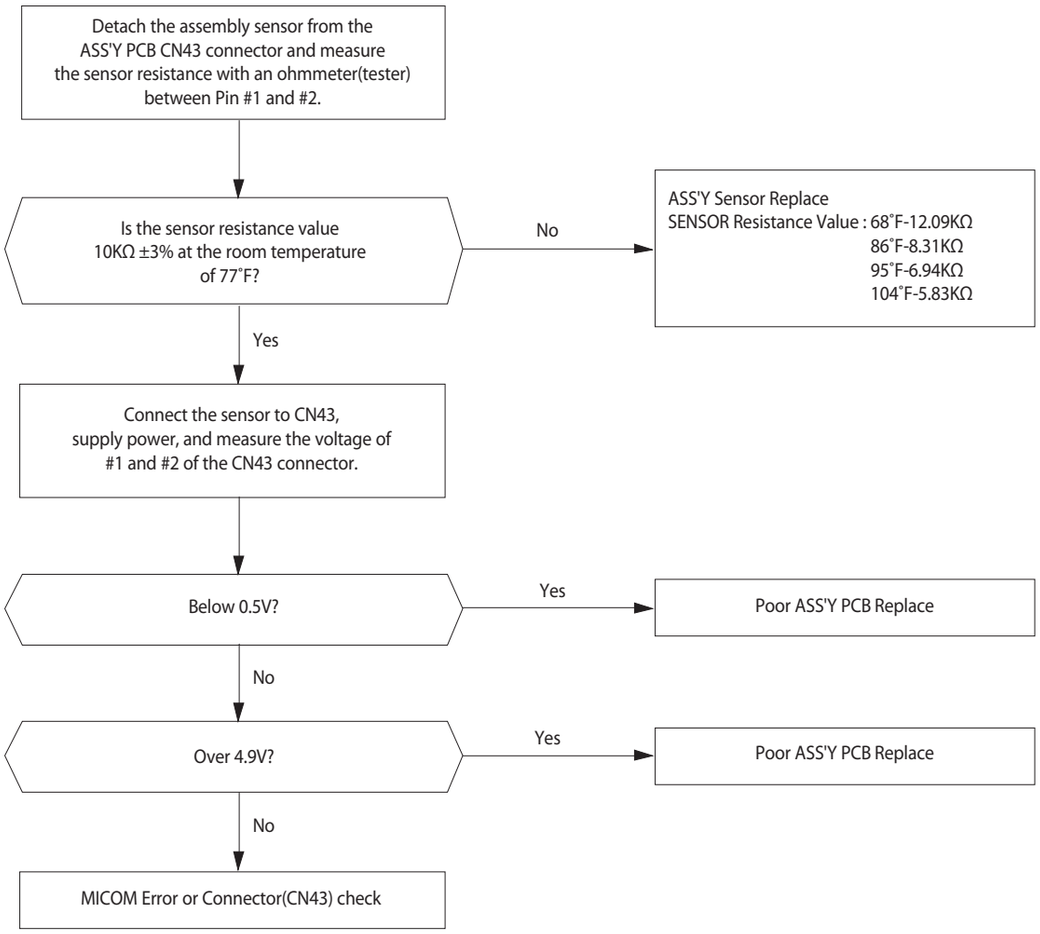
3-1-1 Indoor Unit Room Temperature Sensor Error

Description	LAMP		
	OPERATION	TIMER	TURBO
	≋	◷	TURBO
Indoor unit room temperature sensor error (open or short)	○	◑	○

● : Lamp on, ○ : Lamp off, ◑ : Lamp blink


Detach the assembly sensor from the ASS'Y PCB CN43 connector and measure the sensor resistance with an ohmmeter(tester) between Pin #1 and #2.
Is the sensor resistance value 10KΩ ±3% at the room temperature of 77˚F?
No
ASS'Y Sensor Replace
SENSOR Resistance Value : 68˚F-12.09KΩ
86˚F-8.31KΩ
95˚F-6.94KΩ
104˚F-5.83KΩ
Yes
Connect the sensor to CN43, supply power, and measure the voltage of #1 and #2 of the CN43 connector.
Below 0.5V?
Yes
Poor ASS'Y PCB Replace
No
Over 4.9V?
Yes
Poor ASS'Y PCB Replace
No
MICOM Error or Connector(CN43) check

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3-1-2 Indoor Unit Heat Exchanger Temperature Sensor Error

Description	LAMP		
	OPERATION	TIMER	TURBO
	≋	⏲	TURBO
Indoor unit heat exchanger temperature sensor error (open or short)	◑	◑	○

● : Lamp on, ○ : Lamp off, ◑ : Lamp blink

1. Check the assembly condition of the sensor connector(CN43) on the indoor unit Main PCB and if not assembled, reassemble the connector accurately.

2. Detach the room pipe sensor connector(CN43) and check the resistance between Pin #3 and #4.

Temperature(˚F)	Resistance Value(Kohm)	Temperature(˚F)	Resistance Value(Kohm)	Others
59	14.68	86	8.31	he data tolerance is ±3%.
68	12.09	95	6.94	
77	10	104	5.83	

If the above data is not met, replace the room pipe sensor.

3. Assemble the room pipe sensor to PCB, plug in, and check the voltage of connector 3 and 4. If the resistance is below 0.5V or over 4.9V, replace the indoor Main PCB. (short or disconnected in the PCB board)

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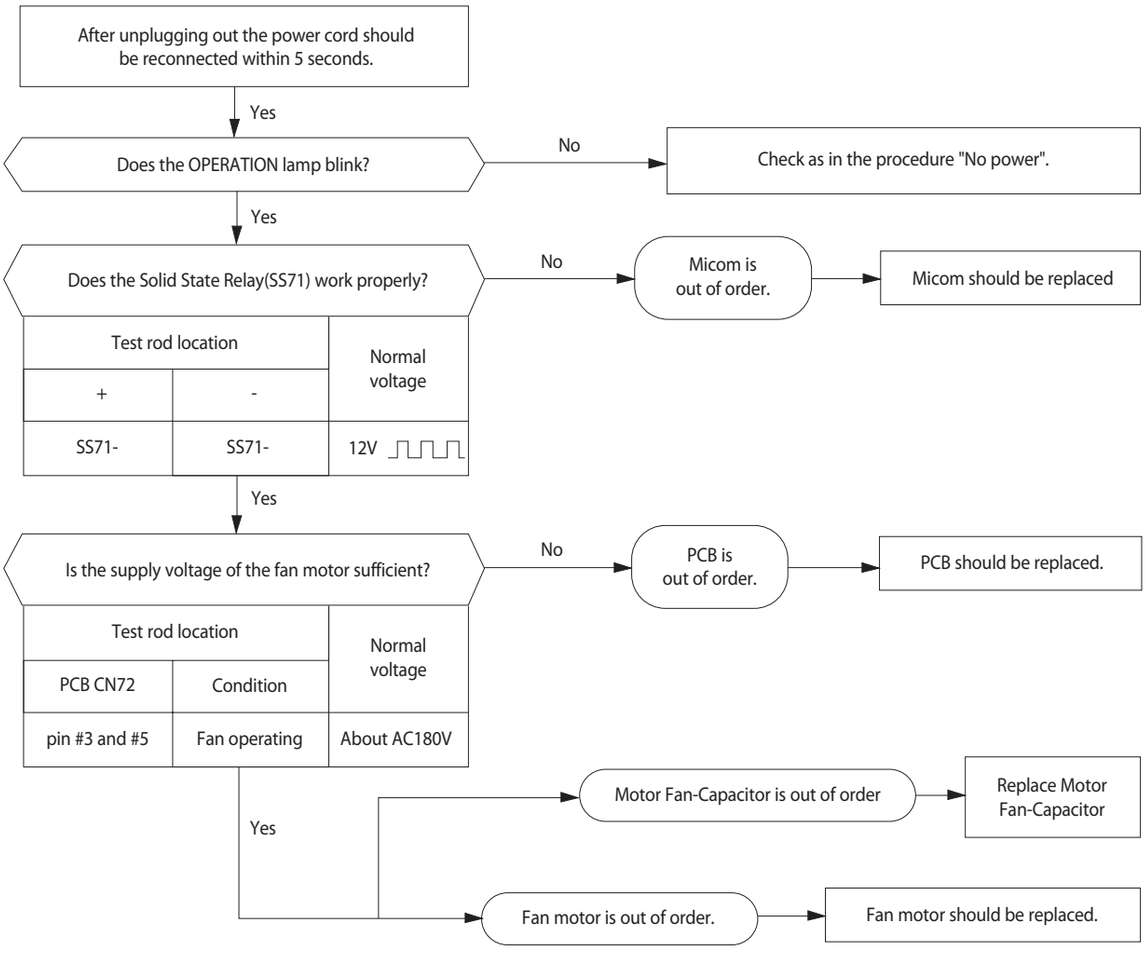
3-1-3 Indoor Unit Fan Motor Malfunction

Description	LAMP		
	OPERATION	TIMER	TURBO
	≋	◷	TURBO
Indoor unit fan motor malfunction	○	○	◑

● : Lamp on, ○ : Lamp off, ◑ : Lamp blink

1. Checklist:
   1) Is the indoor unit fan motor properly connected with the connector (CN72)?
   2) Is the AC voltage correct?
   3) Is HALL IC in indoor fan motor properly connected with the connector (CN44)?
   4) Is the running capacitor (CR71) properly connected with PCB board?

2. Troubleshooting procedure



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3-2 Outdoor LED Error Display and Check Method

No.	LED Display			Explanation	Main Checking Point
	Yellow	Green	Red		
1	○	○	○	Power off/ VDD NG	• Fuse power source
2	○	○	◎	IPM Over Current(O.C)	• Input voltage range • Installation condition • Outdoor fan motor
3	○	○	●	Abnormal Serial communication	• Communication wiring • Installation condition
	○	●	●		
4	○	◎	○	Compressor Starting error	• Compressor wire • Compressor terminal • Outdoor controller
5	○	◎	●	Normal Operation	• Operating mode
6	○	●	○	Compressor Lock error	• Compressor wire • Compressor terminal
7	○	●	◎	DC-Link voltage under/over error	• Input voltage range • DC voltage sensor
8	◎	○	◎	Outdoor temperature sensor error(Dual/Single)	• PCB pattern & sensor(Open/Short)
9	◎	○	●	Discharge over temperature(Dual/Single)	• PCB pattern & sensor(Open/Short)
10	◎	◎	○	Discharge temperature sensor error(Dual/Single)	• PCB pattern & sensor(Open/Short)
11	◎	◎	●	Current sensor error	• PCB pattern & sensor(Open/Short)
12	◎	●	○	Compressor Limit error	• EEV • Gas over charge
13	◎	●	◎	Coil temperature sensor error(Dual/Single)	• PCB pattern & sensor(Open/Short)
14	◎	●	●	1min. Time out Communication	• Communication wiring • PCB pattern(Open/Short)
15	●	○	○	Fan error	• Fan motor • Connector(CN40 or CN71)
16	●	○	◎	OTP error	• PCB pattern & part(Open/Short)
17	●	○	●	Compressor rotation error	• Compressor wire • Compressor terminal
18	●	◎	○	Operation condition secession(Dual only)	• Installation condition • Abient temperature
19	●	◎	◎	DC-Link voltage sensor error	• PCB pattern & sensor(Open/Short)
20	●	◎	●	I_Trip error / PFC Over current	• Input voltage range • PCBpattern & part(Open/Short)
21	●	●	○	GAS Leak error(Dual/Single)	• Piping condition
22	●	●	◎	AC Line Zero Cross Signal out	• Terminal block • AC zero-crossing circuit block
23	●	●	●	Power ON reset(1sec)	• PCB pattern (Open/Short)
24	◎	○	○	Capacity miss match	• Option code
25	○	◎	◎	Test Operation at Cooling Mode	• Operating mode
26	◎	◎	◎	Test Operation at Heating Mode	• Operating mode

● : LED ON, ○ : LED OFF, ◎ : LED BLINK

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3-3 Setting Option Setup Method

ex) Option No. : 66 01 57 02 2E

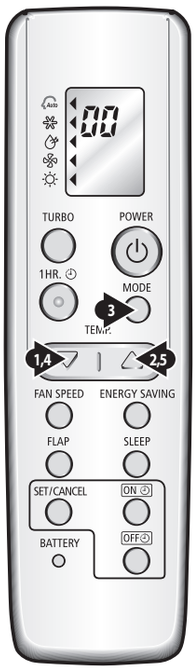
Step 1 : **Enter the Option Setup mode.**

1st Take out the batteries of remote control.

2nd Press the temperature ▽ | △ button simultaneously and insert the battery again.

3rd Make sure the remocon display shown as .

Step 2 : **Enter the Option Setup mode and select your option according to the following procedure.**



	Feature	Display
1	Setting Option SEG1. Push the ▽ button to set the display panel to 6. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	
2	Setting Option SEG2. Push the △ button to set the display panel to 6. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	
3	Change it into the set display of Option SEG3 and SEG4 with the MODE button.	
4	Setting Option SEG3. Push the ▽ button to set the display panel to 0. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	
5	Setting Option SEG4. Push the △ button to set the display panel to 1. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	

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	Feature	Display
	6 Change it into the set display of Option SEG5 and SEG6 with the MODE button.	00
	7 Setting Option SEG5. Push the ▽ button to set the display panel to 5. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	50
	8 Setting Option SEG6. Push the △ button to set the display panel to 7. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	57
	9 Change it into the set display of Option SEG7 and SEG8 with the MODE button.	00
	10 Setting Option SEG7. Push the ▽ button to set the display panel to 0. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	00
	11 Setting Option SEG8. Push the △ button to set the display panel to 2. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	02
	12 Change it into the set display of Option SEG9 and SEG10 with the MODE button.	00
	13 Setting Option SEG9. Push the ▽ button to set the display panel to 2. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	20
	14 Setting Option SEG10. Push the △ button to set the display panel to E. Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ … 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.	2E

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Step 3 : Upon completion of the selection, check you made right selections.

Whenever you press the Mode button, the set Option will be displayed.

Step 4 : Pressing the ON/OFF button ( )

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound "Ding" is heard and the OPERATION LED lamp is flickering at the same time, then the input of option is completed. (If the "ding" sound isn't heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

First, Remove the battery from the remote control.

Second, Re-insert the battery into the remote control.

Third, Press ON/OFF ( ) key with the direction of remote control for set.

• Error Mode

1st If all lamps of indoor unit are flickering, Plug out, plug in power plug again and press ON/OFF key to retry.

2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for its model.

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■ OPTION ITEMS

REMOCON / MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10
AQB18J6WC	A	E	7	7	7	7	5	2	2	A
AQB24J2WC	b	d	7	7	7	7	5	2	5	c

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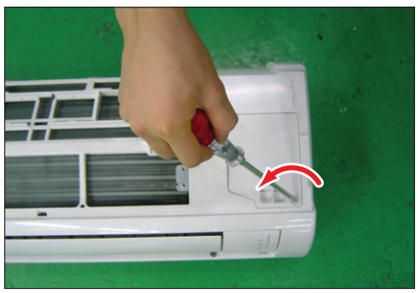
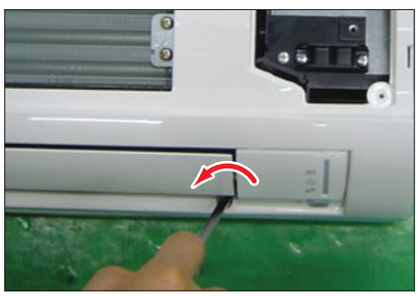
4. Disassembly and Reassembly

Stop operation of the air conditioner and remove the power cord before repairing the unit.

4-1 Indoor Unit

No	Parts	Procedure	Remark
1	Front Grille	1) Stop the air conditioner operation and shut off the main power.	
		2) Open the Front Grille by pulling right and left sides of the hook.	
		3) Loosen 1 of the right screw(CCW) and detach the Terminal Cover. 4) Detach the thermistor from the Front Grille.	
		5) Loosen 3 fixing screws(CCW) of Front Grille.	

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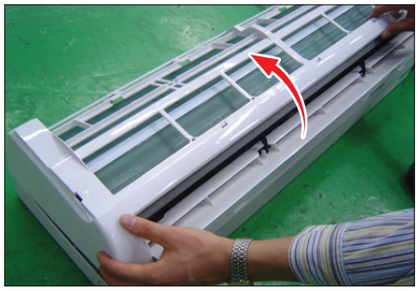
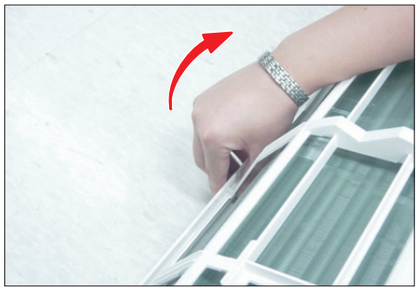
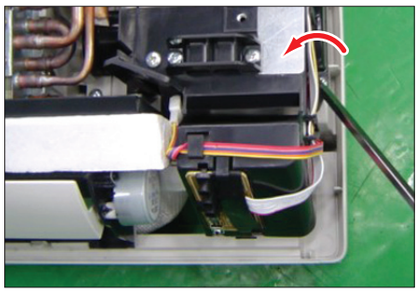
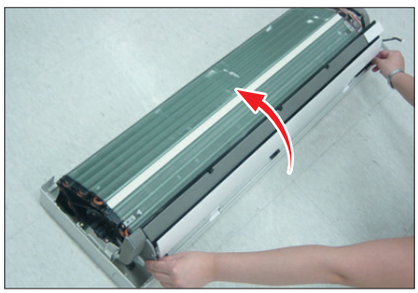
No	Parts	Procedure	Remark
		6) Unlock 3 hooks to fix Panel Front and Tray Drain.	
		7) Unlock 3 hooks to fix Panel Front and Back-Body.	
2	Control-In (Main PCB)	1) Take all the connector of PCB upper side out. (Inclusion Power Cord) 2) Detach the outdoor unit connection wire from the Terminal Block. 3) Loosen 4 fixing screws(CCW) of Ass'y Control-In.	
3	Tray Drain	1) Pull Tray Drain out from the Back Body.	

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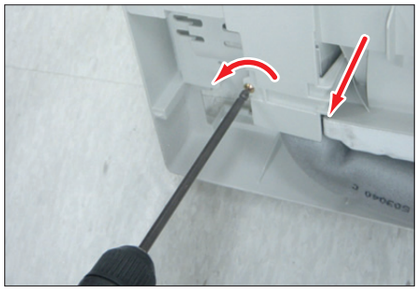
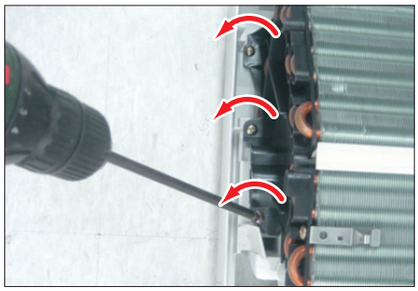
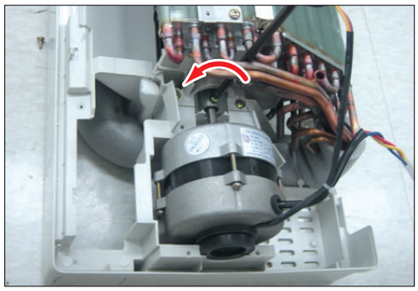
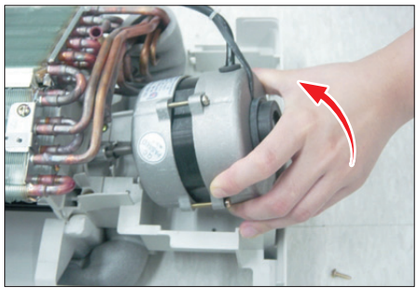
No	Parts	Procedure	Remark
4	Heat Exchanger	1) Loosen 2 fixing earth screws(CCW) of right side. 2) Detach the Connection Pipe. 3) Detach the Holder Pipe at the rear side.	
		4) Loosen the 4 fixing screws(CCW) of right and left side. 5) Lifting the Heat Exchanger up a little to push the up side for separation from the indoor unit.	
5	Fan Motor & Cross Fan	1) Loosen the fixing screw(CCW). 2) Detach the Fan Motor from the Fan. 3) Detach the Fan From the left Holder Bearing.	
			

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4-2 Outdoor Unit

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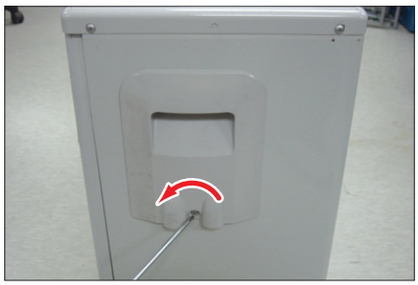
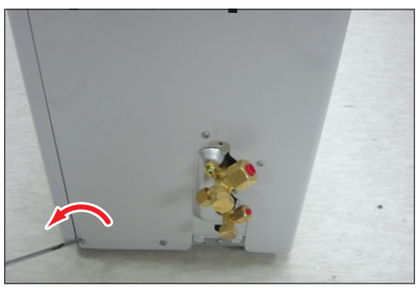
No	Parts	Procedure	Remark
1	Common Work	1) Loosen 1 fixing screw(CCW) of the Cover-Control and detach the Cover Control.	
		2) Loosen fixing screws(CCW) and detach the Cabinet-Upper.	
		3) Loosen 1 screw(CCW) fixed to assemble Control Box with Cabinet-Side RH.	
		4) Loosen 6 fixing screws(CCW) and detach the Cabinet-Side RH.	

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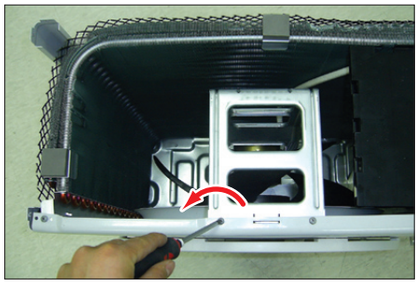
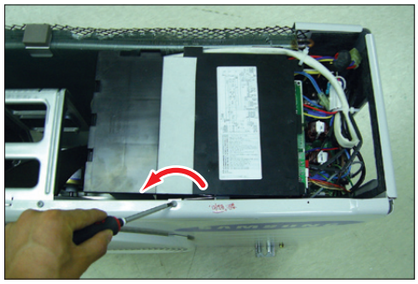
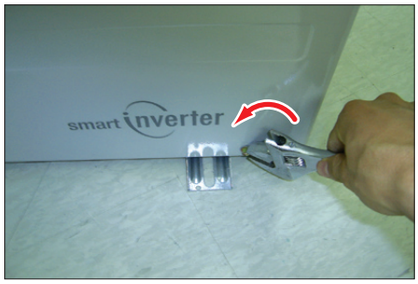
No	Parts	Procedure	Remark
		5) Loosen 2 screws(CCW) fixed on the Guide Condenser.	
		6) Loosen fixing screws(CCW) of the Cabinet Front.	
			
			
			

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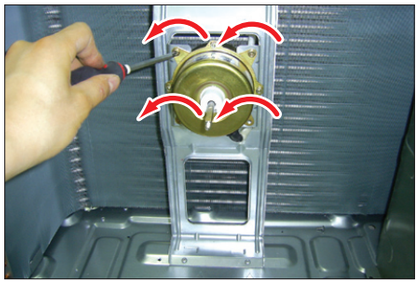
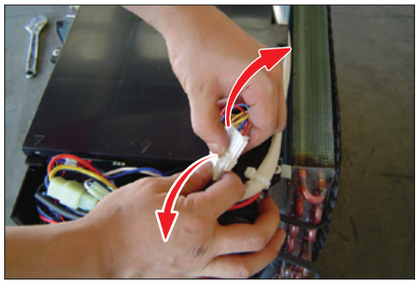
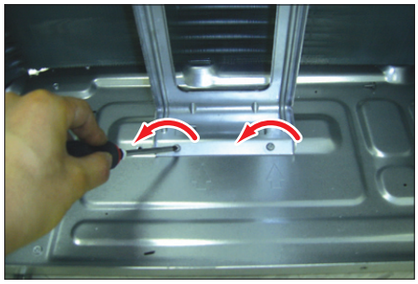
No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange like the picture on the right side. (Turn clockwise because the screw is left-handed.)	
		2) Detach the Fan Propeller. 3) Loosen 4 fixing screws(CCW) to detach the Motor.	
		4) Disconnect the wire between Ass'y Control Out and Motor.	
		5) Loosen 2 fixing screws(CCW) and detach the Bracket Motor.	

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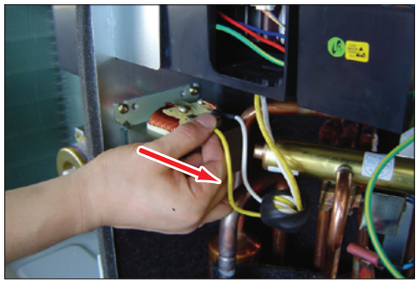
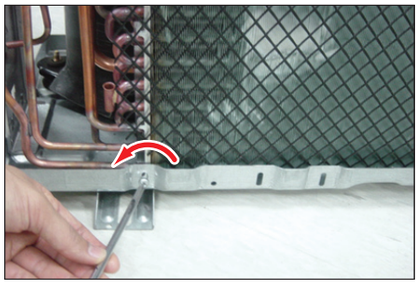
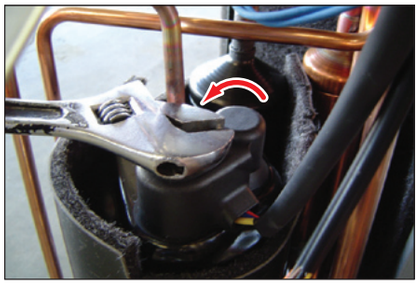
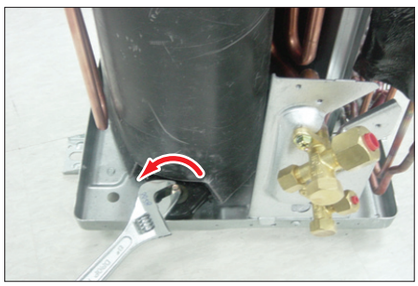
No	Parts	Procedure	Remark
3	Ass'y Control Out	1) Detach several connectors from the Ass'y Control Out. 2) Detach several connectors from the PCB of Ass'y Control Out. 3) Pull up the Ass'y Control Out.	
4	Heat Exchanger	1) Release the refrigerant at first. 2) Loosen fixing screw(CCW). 3) Disassemble the pipes in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	
5	Compressor	1) Loosen the fixing nut(CCW) and detach the Compressor Lead Wire. 2) Disassemble the Felt Comp Sound. 3) Loosen the 3 bolts(CCW) at the bottom of Compressor like the picture on the right side.	 

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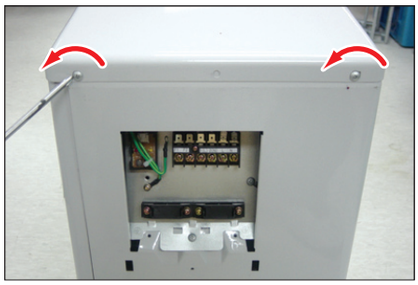
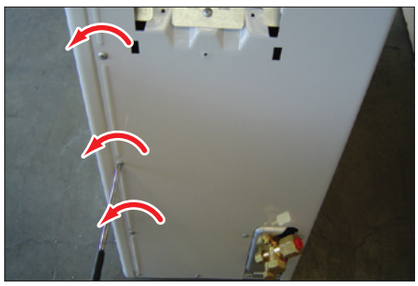
No	Parts	Procedure	Remark
1	Common Work	1) Loosen 1 fixing screw(CCW) of the Cover-Control and detach the Cover Control.	
		2) Loosen each 8 fixing screws(CCW) and detach the Cabinet-Upper.	
		3) Loosen 1 screw(CCW) fixed to assemble Control Box with Cabinet-Side RH.	
		4) Loosen fixing screws(CCW) and detach the Cabinet-Side RH.	

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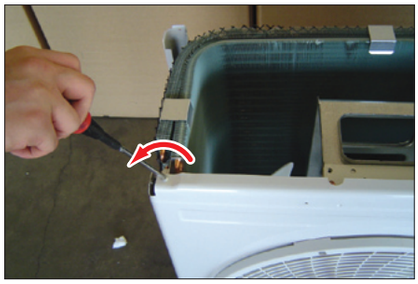
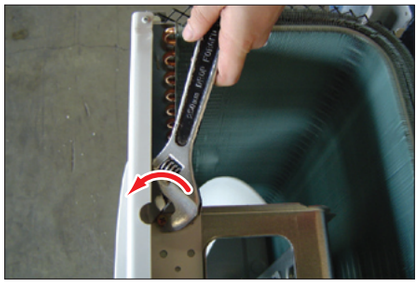
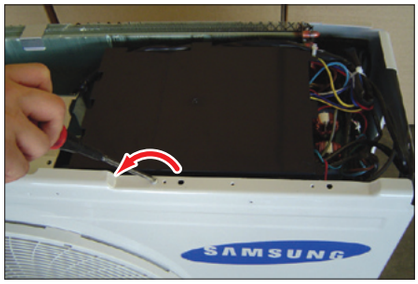
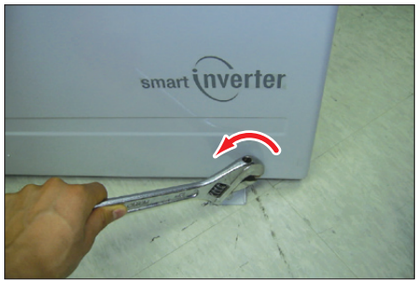
No	Parts	Procedure	Remark
		5) Loosen 2 screws(CCW) fixed on the Guide Condenser.	
		6) Loosen fixing screws(CCW) of the Cabinet Front.	
			
			
			

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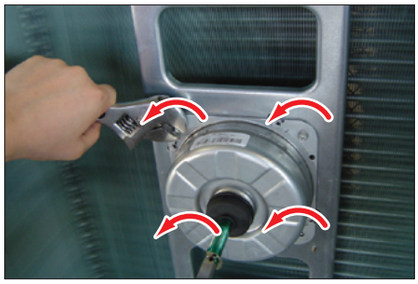
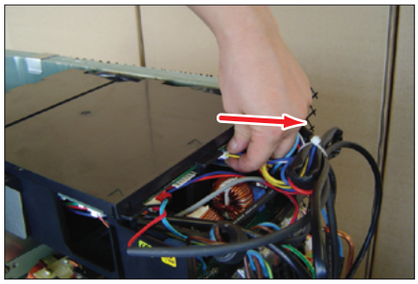
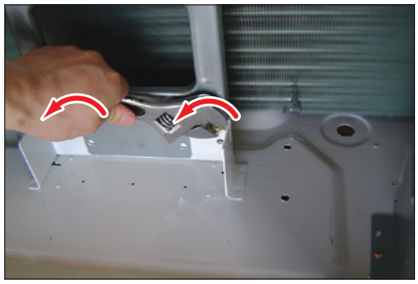
No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange like the picture on the right side. (Turn clockwise because the screw is left-handed.)	
		2) Detach the Fan Propeller. 3) Loosen 4 fixing screws(CCW) to detach the Motor.	
		4) Disconnect the wire between Ass'y Control Out and Motor.	
		5) Loosen 2 fixing bolts(CCW) and detach the Bracket Motor.	

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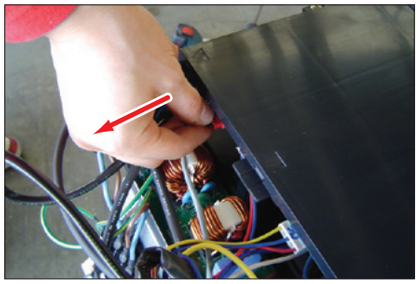
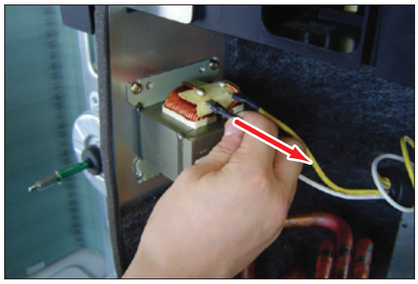
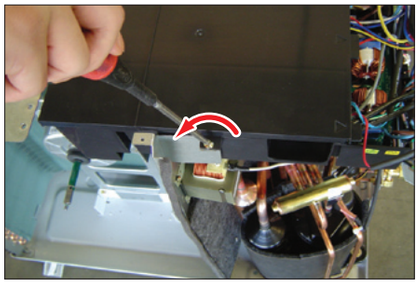
No	Parts	Procedure	Remark
3	Ass'y Control Out	1) Detach several connectors from the Ass'y Control Out. 2) Detach several connectors from the PCB of Ass'y Control Out. 3) Pull up the Ass'y Control Out.	  
4	Heat Exchanger	1) Release the refrigerant at first. 2) Loosen fixing screw(CCW) on both sides. 3) Disassemble the pipes in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	

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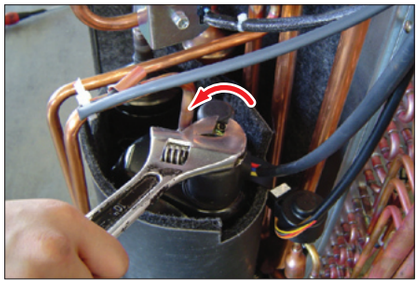
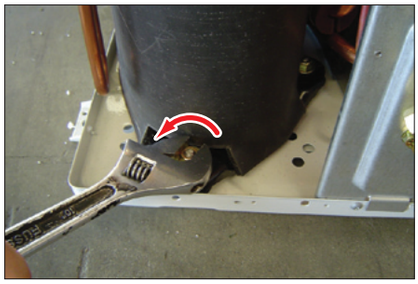
No	Parts	Procedure	Remark
5	Compressor	1) Loosen the fixing nut(CCW) and detach the Compressor Lead Wire.	
		2) Disassemble the Felt Comp Sound. 3) Loosen the 3 bolts(CCW) at the bottom of Compressor like the picture on the right side.	

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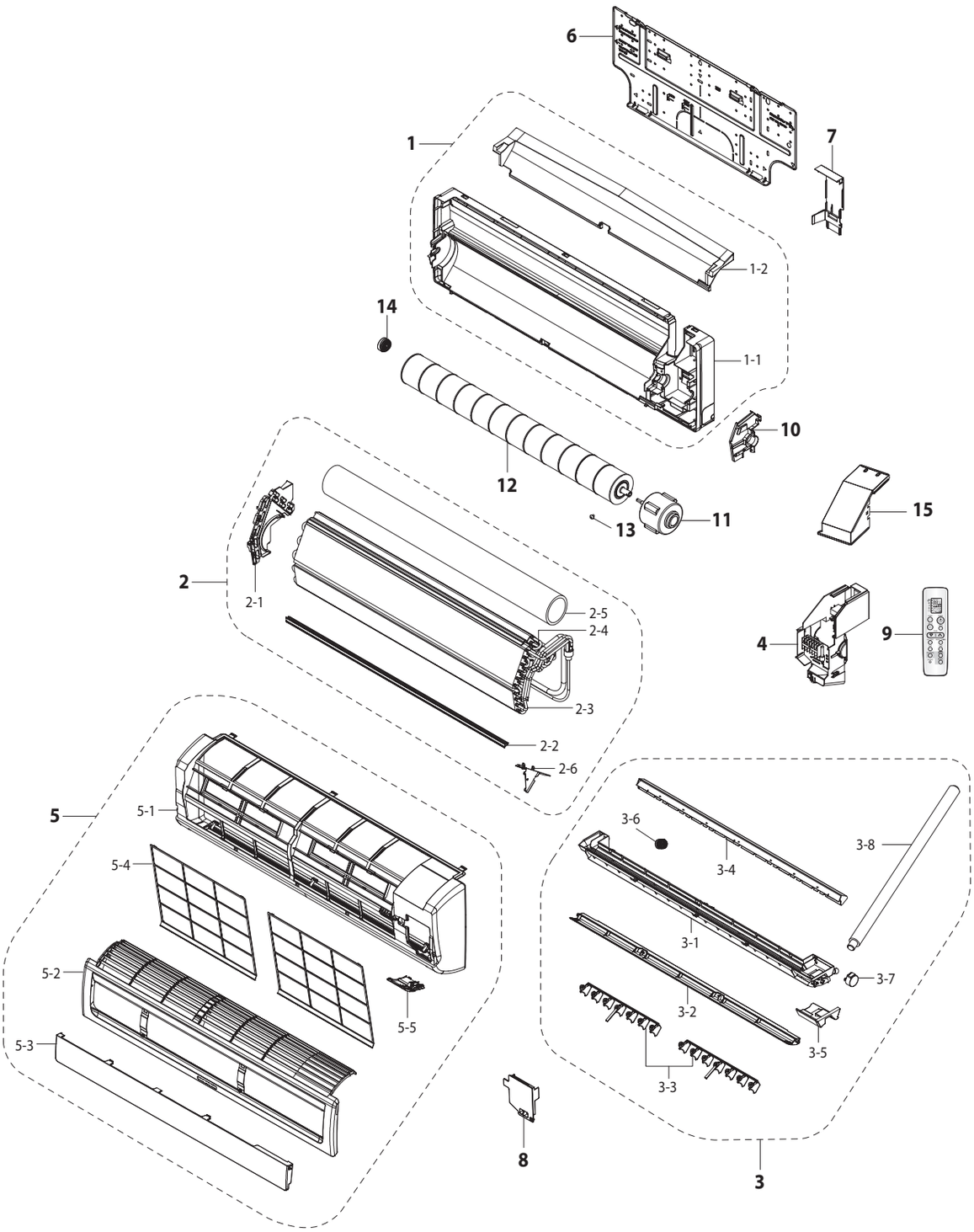
5. Exploded Views and Parts List

5-1 Indoor Unit



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■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA
				AQB18J6WC	AQB24J2WC	
1	DB94-00615A	ASS'Y BACK BODY	ASS'Y	1	1	**SA**
1-1	DB61-01974A	BODY BACK	HIPS	1	1	SNA
1-2	DB69-01039A	CUSHION-BACK BODY	FO-PS	1	1	**SA**
2	DB96-03753J	ASS'Y EVAP	ASS'Y	-	1	**SA**
	DB96-03754K	ASS'Y EVAP	ASS'Y	1	-	**SA**
2-1	DB63-01065A	COVER-BEARING	ABS	1	1	**SA**
2-2	DB60-00192A	SPACER-EVAP LOW	PVC	1	1	**SA**
2-3	DB96-04040K	ASS'Y EVAP-MAIN	ASS'Y	1	1	**SA**
2-4	DB96-04042E	ASS'Y EVAP-SUB	ASS'Y	1	1	**SA**
2-5	DB62-03481A	INSULATION TUBE	FOAM-PE	1	1	SNA
2-6	DB70-00504A	PLATE-EVAP	SGCC-M,T0.8	1	1	SNA
3	DB94-00616B	ASS'Y TRAY DRAIN	ASS'Y	1	1	**SA**
3-1	DB63-01071A	TRAY-DRAIN	HIPS,T2.5	1	1	**SA**
3-2	DB61-01975B	BLADE-H	ABS	1	1	**SA**
3-3	DB61-01976A	BLADE-V	PP	2	2	**SA**
3-4	DB63-01066A	TRAY-STABILIZER	HIPS,T2.0	1	1	**SA**
3-5	DB69-01024A	INSULATION TRAY RH	FO-PS	1	1	**SA**
3-6	DB73-00180A	RUBBER-CAP DRAIN	GUM-EPM	1	1	SNA
3-7	DB31-00285A	MOTOR STEPPING	12V,35BYJ46-276	1	1	**SA**
3-8	DB94-00458B	ASS'Y DRAIN-HOSE	ASS'Y	1	1	**SA**
4	DB93-03669B	ASS'Y CONTROL IN	ASS'Y	1	1	**SA**
5	DB92-00779G	ASS'Y PANEL FRONT	ASS'Y	1	1	SNA
5-1	DB64-01184B	PANEL FRONT	ABS,T2.5	1	1	**SA**
5-2	DB64-01533A	GRILLE-PREMIUM	ABS	1	1	SNA
5-3	DB64-01534A	GRILLE-DECO	ABS,NO COATING	1	1	SNA
5-4	DB63-01186C	GUARD-AIR FILTER	PP	2	2	**SA**
5-5	DB93-02867B	ASS'Y DISPLAY	ASS'Y	1	1	**SA**
6	DB70-00505A	PLATE-HANGER	SGCC-P, T0.6	1	1	SNA
7	DB61-01981A	HOLDER-PIPE	HIPS,T2.5	1	1	**SA**
8	DB63-01063B	COVER-CONTROL	ABS 5V,T2.5	1	1	**SA**
9	DB93-03012K	ASS'Y REMOCON	ASS'Y	1	1	**SA**
10	DB96-03817A	ASS'Y EVAP-SUPPORT	ASS'Y	1	1	**SA**
11	DB31-00267A	MOTOR FAN	YFK 40 4C,50/60Hz,220~240V	1	1	**SA**
12	DB94-00456B	ASS'Y-CROSS FAN	ASS'Y	1	1	**SA**
13	DB97-02075A	ASS'Y-BOLT SPECIAL	ASS'Y	1	1	SNA
14	DB94-00455A	ASS'Y BEARING-RUBBER	ASS'Y	1	1	**SA**
15	DB61-02316A	PLATE-COVER PCB	SGCC-M,T0.4	1	1	SNA

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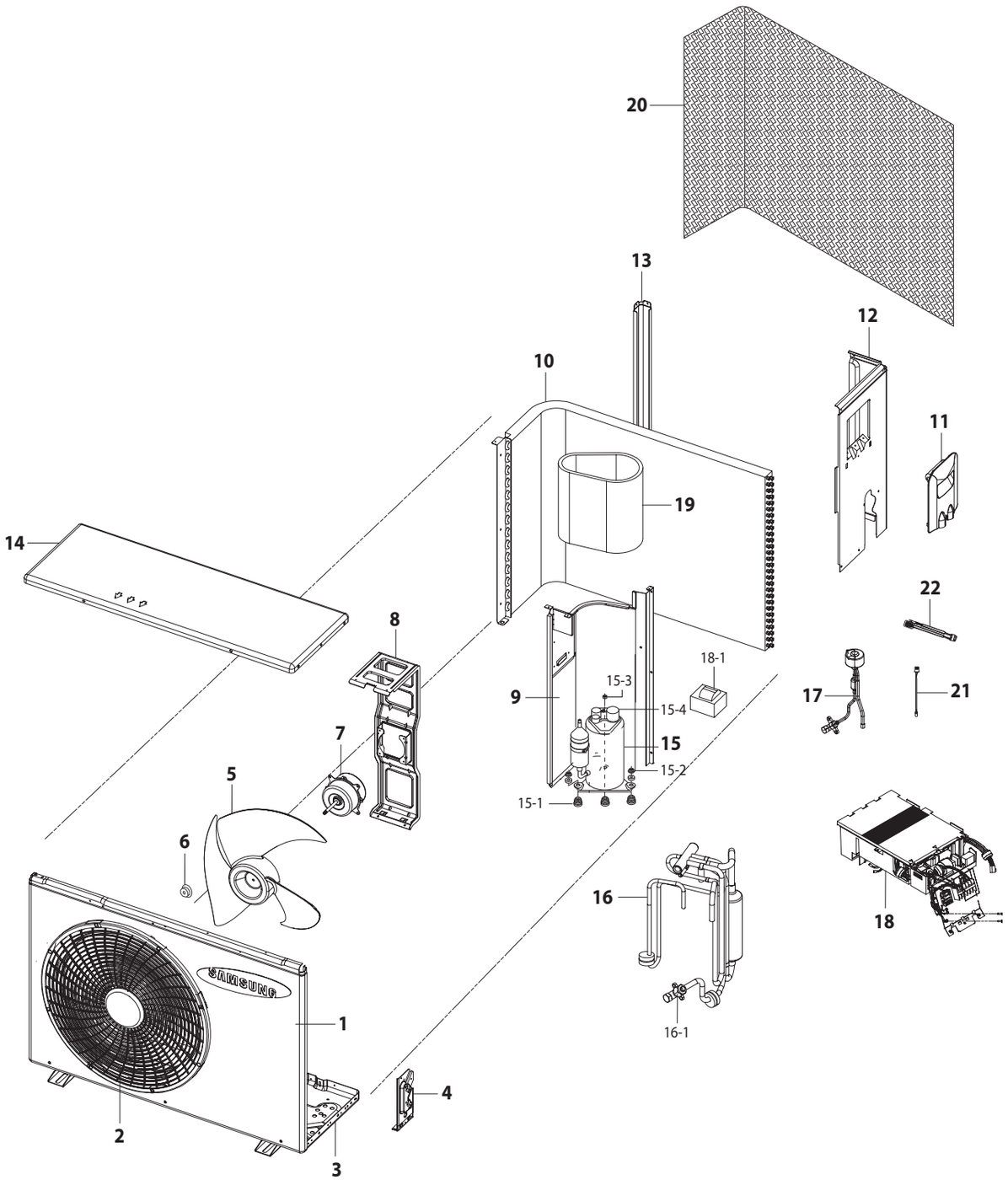
5-2 Outdoor Unit

■ ✳✳18✳✳



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■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB90-01772C	ASS'Y CABI-FRONT	ASS'Y	1	**SA**	
2	DB63-00831B	GUARD FAN	PP HB,UL746C,SC-90073R	1	**SA**	
3	DB90-02203B	ASS'Y BASE OUT	ASS'Y	1	**SA**	
4	DB61-02066A	BRACKET VALVE	GALVANIZED STEEL	1	**SA**	
5	DB67-00243A	FAN-PROPELLER	AS+G/F20%,ø420	1	**SA**	
6	DB60-30004A	NUT-FLANGE	M6,CCW	1	**SA**	
7	DB31-00264B	MOTOR FAN OUT	230V/50Hz	1	**SA**	
8	DB61-02533B	ASS'Y BRACKET MOTOR	ASS'Y	1	**SA**	
9	DB94-00873A	ASS'Y PARTITION	ASS'Y	1	**SA**	
10	DB96-05485A	ASS'Y COND UNIT	ASS'Y	1	**SA**	
11	DB90-02627A	ASS'Y-COVER CONTROL	ASS'Y	1	**SA**	
12	DB90-01350K	ASS'Y CABINET-SIDE RH	SC-90073T	1	**SA**	
13	DB63-00343A	GUARD COND	SC-90073T	1	**SA**	
14	DB90-01881A	ASS'Y-CABI UPPER	ASS'Y	1	**SA**	
15	G8T200FU1EW	COMPRESSOR	ROTARY	1	**SA**	
15-1	DB73-00067A	GROMMET ISOLATOR	NR	3	**SA**	
15-2	DB60-30028A	NUT-WASHER	M8	3	**SA**	
15-3	DB60-30018A	NUT-FLANGE	M5	1	**SA**	
15-4	DB63-10165D	COVER-TERMINAL	PBT	1	**SA**	
16	DB99-00711A	ASS'Y-4WAY V/V	ASS'Y	1	**SA**	
16-1	DB62-02285A	VALVE SERVICE	1/2"	1	SNA	
17	DB99-00708A	ASS'Y VALVE EEV	ASS'Y	1	**SA**	
18	DB93-03665F	ASS'Y CONTROL-OUT	ASS'Y	1	**SA**	
18-1	DB81-00534A	REACTOR	5mH,20A	1	**SA**	
19	DB63-01223B	CLOTH-COMP SOUND	FELT+EVAR	1	**SA**	
20	DB61-00821B	GUARD-SCREEN	P.E.H	1	**SA**	
21	DB32-00081D	SENSOR TEMP-COND	ASS'Y	1	**SA**	
22	DB32-00083G	THERMISTOR-OUT/DISCHARGE	ASS'Y	1	**SA**	

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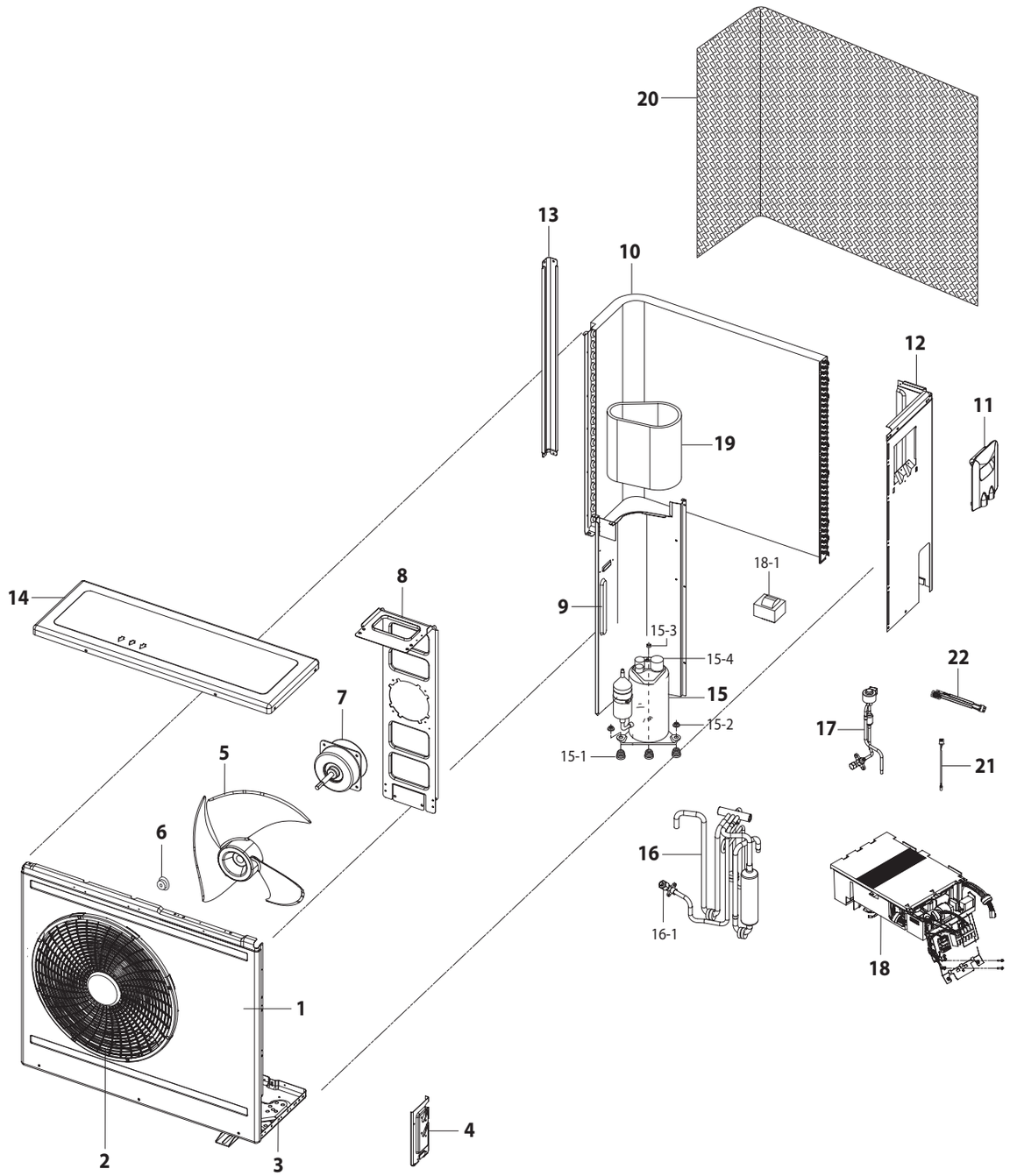

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■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB90-00565M	ASS'Y CABI-FRONT	ASS'Y	1	**SA**	
2	DB63-00831B	GUARD FAN	PP HB,UL746C,SC-90073R	1	**SA**	
3	DB90-01336F	ASS'Y BASE OUT	ASS'Y	1	**SA**	
4	DB61-01593A	BRACKET VALVE	GALVANIZED STEEL	1	**SA**	
5	DB67-00438A	FAN-PROPELLER	AS+G/F20%,Ø460	1	**SA**	
6	DB60-30004A	NUT-FLANGE	M6,CCW	1	**SA**	
7	DB31-00268A	MOTOR FAN OUT	230V/50Hz	1	**SA**	
8	DB90-00967D	ASS'Y BRACKET MOTOR	ASS'Y	1	**SA**	
9	DB94-00869A	ASS'Y PARTITION	ASS'Y	1	**SA**	
10	DB96-05447A	ASS'Y COND-UNIT	ASS'Y	1	**SA**	
11	DB90-02627A	ASS'Y-COVER CONTROL	ASS'Y	1	**SA**	
12	DB90-02296B	ASS'Y CABINET-SIDE RH	SC-90073T	1	**SA**	
13	DB63-30027C	GUARD COND	SC-90073T	1	**SA**	
14	DB90-00569G	ASS'Y-CABI UPPER	ASS'Y	1	**SA**	
15	G8T260FU1EW	COMPRESSOR	ROTARY	1	**SA**	
15-1	DB73-00067A	GROMMET-MOUNT	NR	3	SNA	
15-2	DB60-30028A	NUT-WASHER	M8	3	**SA**	
15-3	DB60-30018A	NUT-FLANGE	M5	1	**SA**	
15-4	DB63-10165D	COVER-TERMINAL	PBT	1	**SA**	
16	DB99-00710B	ASS'Y-4WAY V/V	ASS'Y	1	**SA**	
16-1	DB62-02342A	VALVE SERVICE	5/8"	1	SNA	
17	DB99-00709A	ASS'Y VALVE EEV	ASS'Y	1	**SA**	
18	DB93-03665G	ASS'Y CONTROL OUT	ASS'Y	1	**SA**	
18-1	DB81-00534A	REACTOR	5mH,20A	1	**SA**	
19	DB63-01223B	CLOTH-COMP SOUND	FELT+EVAR	1	**SA**	
20	DB61-00821A	GUARD-SCREEN	P.E.H	1	**SA**	
21	DB32-00081D	SENSOR TEMP-COND	ASS'Y	1	**SA**	
22	DB32-00083J	THERMISTOR-OUT/DISCHARGE	ASS'Y	1	**SA**	

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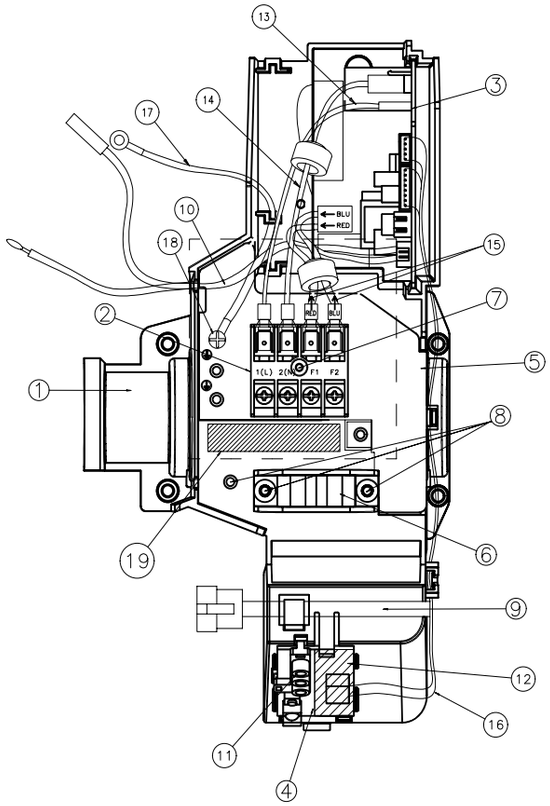
5-3 Ass'y Control In : DB93-03669B



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	DB61-01979B	CASE-CONTROL IN	ABS(5V)	1	SNA
2	DB65-00004U	TERMINAL BLOCK	DAF-4P	1	SNA
3	DB93-03663E	ASS'Y-MAIN PCB	ASS'Y	1	**SA**
4	DB93-03117A	ASS'Y-S/W & DISPLAY PCB	ASS'Y	1	SNA
5	DB70-00507A	PLATE-TERMINAL LOW	SGCC-M,T1.2	1	SNA
6	DB61-01980A	HOLDER-WIRE CLAMP	ABS	1	**SA**
7	6001-000929	SCREW-MACHINE	PH M3xL22	1	SNA
8	6001-001054	SCREW-MACHINE	TH M4xL10	3	SNA
9	DB39-00147A	C/W STEP MOTOR UP/DOWN	ASS'Y	1	SNA
10	DB32-00020H	ASS'Y-THERMISTOR	4P(103AT)	1	**SA**
11	DB63-00851A	COVER LAMP	ABS(V0)	1	SNA
12	DB73-00242B	RUBBER-BAND	RUBBER	1	SNA
13	DB39-00765T	CONNECT WIRE-L	BRN	1	SNA
14	DB39-01193A	CONNECT WIRE-N	SKYBLU,3P	1	SNA
15	DB39-01210B	CONNECT WIRE-COMM	RED/BLU	1	SNA
16	DB39-01213A	C/W DISPLAY	UL1017,AWG,#26,280	1	SNA
17	DB39-00148A	PLATE EARTH WIRE	UL1015,AWG,#16,200	1	SNA
18	6009-001001	SCREW SPECIAL	M4x8,WHT	1	SNA
19	DB98-01975A	LABEL CAUTION	50x12	1	SNA

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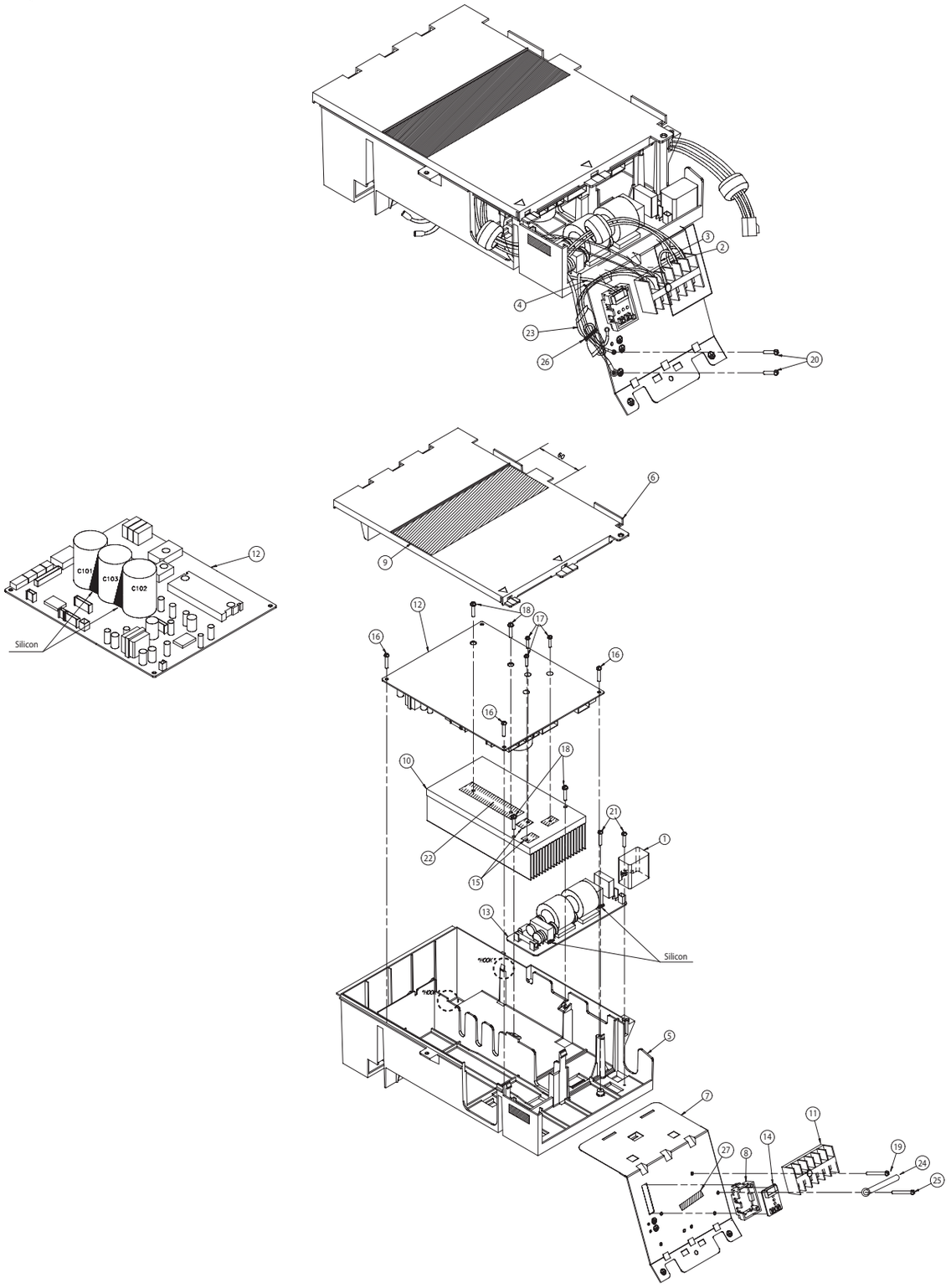
5-4 Ass'y Control Out

■ **UQB18J6WC : DB93-03665F**
UQB24J2WC : DB93-03665G



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■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA	Remark
				UQB18J6WC	UQB24J2WC		
1	2301-001379	C-FILM,LEAD-OTHER	4uF,450V	1	1	**SA**	
2	DB39-00604W	LEAD CONNECTOR-N	SKYBLU	1	1	SNA	
3	DB39-00604X	LEAD CONNECTOR-L	BRN	1	1	SNA	
4	DB39-01198A	CONNECT WIRE	5P,MAIN TO DISPLAY	1	1	SNA	
5	DB61-02511B	CASE CONTROL-BASE	ABS 5V,T2.0	1	1	SNA	
6	DB61-02512B	CASE CONTROL-COVER	ABS 5V,T2.0	1	1	SNA	
7	DB61-02534A	PLATE-CONTROL OUT	SGCC-M,T0.6	1	1	SNA	
8	DB61-02543A	CASE-DISPLAY PCB	ABS V0,T2.0	1	1	SNA	
9	DB62-01925D	INSULATION-CONTROL BOX TOP	FOAM-LEX,T2,WHT	1	1	SNA	
10	DB62-03874A	HEAT SINK	100mm,185mm,50mm,AL	1	1	SNA	
11	DB65-00179C	TERMINAL BLOCK	DAF-6P	1	1	SNA	
12	DB93-03545F	ASS'Y PCB MAIN	PCB-2L	1	-	**SA**	
	DB93-03545G	ASS'Y PCB MAIN	PCB-2L	-	1	**SA**	
13	DB93-03546A	ASS'Y PCB SUB-EMI	PCB-2L	1	-	**SA**	
	DB93-03546B	ASS'Y PCB SUB-EMI	PCB-2L	-	1	**SA**	
14	DB93-03662A	ASS'Y PCB DISPLAY	PCB-1L	1	1	**SA**	
15	DB98-17991A	ASS'Y-INSULATOR MICA	MICA	2	2	SNA	
16	6002-000630	SCREW-TAPPING	PH,+,M3,L8	3	3	SNA	
17	DB91-00306A	ASS'Y-SCREW MACHINE	PH,+,M3,L16	3	3	SNA	
18	DB91-00307A	ASS'Y-SCREW MACHINE	PH,+,M4,L16	4	4	SNA	
19	6002-000555	SCREW-TAPPING	PH,+,M4,L25	1	1	SNA	
20	6009-001001	SCREW-SPECIAL	TH,+,M4,L8	1	1	SNA	
21	6002-000536	SCREW-TAPPING	PH,+,M4,L10	2	2	SNA	
22	DB98-24813A	ASS'Y-THERMAL GREASE	INV,RADIANT HEAT	0.002	0.002	SNA	
23	DB93-01469M	ASS'Y PCB	ASS'Y NOISE ABSORBER	1	1	**SA**	
24	DB61-00206A	HOLDER-WIRE	SGCC-M,T0.5	1	1	SNA	
25	6002-001149	SCREW-TAPPING	PH,+,M4,L10	1	1	SNA	
26	DB65-10088D	CABLE-TIE	NY-66	1	1	SNA	
27	DB68-01975A	LABLE CAUTION	50x12	1	1	SNA	

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6. Electrical Parts List

■ INDOOR MAIN PCB : DB93-03663E

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
AC_L	3712-001139	CONNECTOR-TERMINAL	TAB,MALE,-,6.35x0.8mm	1	SNA	
BD71	0402-001298	DIODE-BRIDGE	DF06S,600V,1A,SMD-4,TP	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,-,2KHz,-	1	SNA	
C101	2401-003895	C-AL	15uF,20%,450V,GP,TP,12.5x20mm,5	1	SNA	
C102	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C103	2401-000151	C-AL	1000uF,20%,25V,GP,TP,10x20,5	1	SNA	
C104	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
C105	2401-000037	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	SNA	
C106	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
C107	2201-000987	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10	1	SNA	
C108	2201-000987	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10	1	SNA	
C109	2201-002193	C-CERAMIC,DISC	0.082nF,±10%,3000V,SL,-,8.5x3,5	1	SNA	
C201	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C202	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	SNA	
C203	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	SNA	
C401	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	SNA	
C402	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
C403	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
C404	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	SNA	
C405	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	SNA	
C406	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	SNA	
C501	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
C502	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C503	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C504	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C505	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C506	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C507	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C508	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C509	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C510	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C601	2401-002300	C-AL	47uF,20%,50V,GP,TP,6.3x11,5	1	SNA	
C901	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
CD11	0406-001086	DIODE-TVS	ST02D-200,185/200/215V,200W,DO-214	1	SNA	
CN22	DB39-01194A	CONNECT WIRE-15P	AS24(18)BPB,#1007 26 AWG,-,15,140,WHT,#26, SMH200-12 WHT,YBH200-12 WHT,-,230V/50H	1	SNA	
CN43	3711-004379	HEADER-BOARD TO CABLE	BOX,4P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	

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■ INDOOR MAIN PCB : DB93-03663E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN44	3711-000879	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,STRAIGHT,SN,BLU	1	SNA	
CN61	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
CN71	3711-003404	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,BLU	1	SNA	
CN72	3711-000262	HEADER-BOARD TO CABLE	1WALL,3P,1R,7.92mm,STRAIGHT,SN,WHT	1	SNA	
CN92	3711-004236	HEADER-BOARD TO CABLE	BOX,6P,1R,2mm,STRAIGHT,SN	1	SNA	
CN93	3711-003942	HEADER-BOARD TO CABLE	BOX,2P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	
CR71	2301-001363	C-FILM,LEAD-PPF	2000nF,+10-5%,450V,BK,38x18x30mm,33	1	SNA	
D101	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
D701	0402-000012	DIODE-RECTIFIER	UF4007,1KV,1A,DO-41,TP	1	SNA	
F701	3602-001012	FUSE-BLOCK	500V,-,100m	1	SNA	
F701-1	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001209	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	SNA	
FT71	DB27-00020A	COIL CHOKE	SSU10V-1500S,Interior SLIM,15.0mH,+50~-30%,-,2ohm, 1.5A,-,80±5 Turns,17x19x22,4	1	SNA	
IC01	1203-002545	IC-PWM CONTROLLER	266,DIP,8P,300MIL,PLASTIC,-0.3/700V,-,-40TO+150C,560mA,-,ST	1	SNA	
IC02	1203-000429	IC-POSI.FIXED REG.	78L05A,TO-92,3P,-,PLASTIC,4.6	1	SNA	
IC04	DB09-00456A	IC MICOM	MB90F823,-,80 P,5 V,24 MHz,STM-0575-OA,24,16,QFP,QFP, 14*20 mm,16,-40~85	1	SNA	
IC05	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC06	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC07	1003-001462	IC-SOURCE DRIVER	TD62783AFW,SOL,18P,-,8,-500mA,TP,PLASTIC,50V, -40TO85C,1.47,50V,-	1	SNA	
IC08	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC09	1103-001175	IC-EEPROM	93LC56,128x16,SOP,8P,5x4mm,2.5/6.0V,-40to+85C	1	SNA	
IC59	1203-003334	IC-RESET	S-801,SOT-23,5P,2.9x1.6mm,PLASTIC,3.716/4.284V, 256mW,-,2.5mA,-,TP	1	SNA	
NTC1	1404-001274	THERMISTOR-NTC	22ohm,1.4A,3100K,9.5mW/C,-,7.0,-	1	SNA	
PC01	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	SNA	
PC02	0604-001003	PHOTO-COUPLER	TR,50-150%,200mW,DIP-4,ST	1	SNA	
PCB	DB41-00407A	PCB-INDOOR	AS12(09)HPBN,-,2,00,1.6T,-,HB,2,-,LOW TEMP	1	SNA	
Q101	0504-001064	TR-DIGITAL	DTC114EKA,NPN,200mW,10K/10K,SOT-23,TP	1	SNA	
Q201	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q401	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q601	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q602	0501-002296	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SMT3,TP,100-300	1	SNA	
Q603	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R102	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	

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■ INDOOR MAIN PCB : DB93-03663E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R105	2007-000931	R-CHIP	470ohm,5%,1/8W,TP,2012	1	SNA	
R201	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R202	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R203	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R204	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R205	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R206	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R207	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R208	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R209	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R210	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R211	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R301	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R401	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R402	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R403	2007-000087	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	1	SNA	
R404	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R405	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R406	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R407	2007-001068	R-CHIP	6.8Kohm,1%,1/10W,TP,1608	1	SNA	
R408	2007-001068	R-CHIP	6.8Kohm,1%,1/10W,TP,1608	1	SNA	
R409	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R410	2007-000109	R-CHIP	1Mohm,5%,1/10W,TP,1608	1	SNA	
R501	2007-000109	R-CHIP	1Mohm,5%,1/10W,TP,1608	1	SNA	
R502	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	SNA	
R503	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R504	2007-000962	R-CHIP	5.1Kohm,1%,1/10W,TP,1608	1	SNA	
R505	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R602	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R604	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R605	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R606	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R607	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R608	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R609	2007-000119	R-CHIP	560ohm,5%,1/10W,TP,1608	1	SNA	
R610	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R611	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	

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■ INDOOR MAIN PCB : DB93-03663E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R908	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R909	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
SS71	3502-000115	SSR	12Vdc,-,2A,1mS,1mS	1	SNA	
ST11	DB26-00015A	TRANS SWITCHING	-,JT1916-09,-,310V,FERRITE,-,EI1916,130KHz,-,1.65mH, -,-,-,-,SHIELD	1	SNA	
VA71	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
XC71	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	
XC72	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	
XTAL51	2802-001179	RESONATOR-CERAMIC	4MHz,0.5%,BK,8x3x5.5mm	1	SNA	
ZD11	0403-000252	DIODE-ZENER	BZX84C3V6,3.4-3.8V,350mW,SOT-23,TP	1	SNA	
ZD12	0403-001285	DIODE-ZENER	BZX84-C11,10.4-11.6V,350mW,SOT-23,TP	1	SNA	
ZD13	0403-000466	DIODE-ZENER	BZX84C4V3,4.3,225mW,SOT-23,TP	1	SNA	

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■ INDOOR SUB PCB : DB93-04001A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C302	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C303	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C304	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C305	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C306	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C307	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C316	2203-005249	C-CER,CHIP	100nF,10%,50V,X7R,1608	1	SNA	
CD312	0406-001204	DIODE-TVS	SMBJ5.0CA,6.4/-/7.07V,600W,SMB	1	SNA	
CN11	3711-006040	HEADER-BOARD TO BOARD	NOWALL,10P,2R,2.54mm,ANGLE,AU,BLK	1	SNA	
CN12	3711-003847	HEADER-BOARD TO CABLE	BOX,12P,1R,2mm,ANGLE,SN	1	SNA	
CN31	3711-000056	HEADER-BOARD TO CABLE	BOX,2P,1R,2.5mm,ANGLE,SN,WHT	1	SNA	
IC18	1006-001312	IC-BUS TRANSCEIVER	1487,SO,8P,4.9x3.8 mm,SINGLE,ST,PLASTIC,5V,-, -40to+85CC,520mW,1,-,1,1.5/5.25V,-	1	SNA	
IC20	0801-000393	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL,QUAD,ST,-,2.0/6.0V, 0.26V,-40to+85C,180mW,4.2V,1uA,	1	SNA	
IC31	0604-001003	PHOTO-COUPLER	TR,50-150%,200mW,DIP-4,ST	1	SNA	
PCB	DB41-00476A	PCB SUB-485COMM	SH24BP2,FR-4,2,01,1.6T,25x40,P,9,-,-	1	SNA	
R201	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R202	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R203	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R204	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R205	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R206	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R302	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R303	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R304	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R305	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R309	2007-000656	R-CHIP	27Kohm,5%,1/4W,TP,3216	1	SNA	
R310	2007-000656	R-CHIP	27Kohm,5%,1/4W,TP,3216	1	SNA	
R311	2007-000656	R-CHIP	27Kohm,5%,1/4W,TP,3216	1	SNA	
R312	2007-000656	R-CHIP	27Kohm,5%,1/4W,TP,3216	1	SNA	
R315	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R350	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
RY01	3501-001248	RELAY-MINIATURE	12V,-,11.7mA,DPDT,4mS,4mS	1	SNA	
SW01	3407-000121	SWITCH-DIP	24V,300mA,SLIDE,STANDARD	1	SNA	

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■ INDOOR DISPLAY PCB : DB93-03117A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C91	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C92	2202-000173	C-CERAMIC,MLC-AXIAL	1nF,10%,50V,Y5P,-,1.9x3.5mm,-	1	SNA	
CN92	3711-003846	HEADER-BOARD TO CABLE	BOX,8P,1R,2mm,ANGLE,SN	1	SNA	
COOL	0601-000552	LED	ROUND,GRN,3mm,570nm	1	SNA	
D91	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,TP	1	SNA	
PCB	DB41-00347A	PCB DISPLAY	WW1-STD,FR-1,1,-,-,30x70,-,-,-,TSE,DYNAMIC CONTROL	1	SNA	
R91	2001-000109	R-CARBON(S)	470ohm,5%,1/2W,AA,TP,2.4x6.4mm	1	SNA	
R92	2001-000109	R-CARBON(S)	470ohm,5%,1/2W,AA,TP,2.4x6.4mm	1	SNA	
RM91	0609-001204	MODULE REMOCON	HORIZONTAL,6.5mm,TR	1	SA	
SW91	3404-001220	SWITCH-TACT	12V,50mA,160gf,6.1x6.1x5.0mm,SPST	1	SNA	
TIMER	0601-000552	LED	ROUND,GRN,3mm,570nm	1	SNA	
TURBO	0601-001373	LED	ROUND,RED,3mm,630nm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BD01	DB98-16586A	ASS'Y-DIODE	GSIB2510	1	SNA	
C/W 4 WAY	DB39-00649E	CONNECT WIRE	AWG 18	1	SNA	
C/W AC FAN	DB39-01193B	CONNECT WIRE	RED/BLU/YEL	1	SNA	
C/W COMP	DB39-00746C	CONNECT WIRE-COMP	AWG 14	1	SNA	
C/W REACTOR	DB39-00747E	CONNECT WIRE	AWG 14	1	SNA	
C008	2301-000141	C-FILM,LEAD-PEF	10nF	1	SNA	
C101	2401-003740	C-AL	560uF	1	SNA	
C102	2401-003740	C-AL	560uF	1	SNA	
C103	2401-003740	C-AL	560uF	1	SNA	
C104	2401-000470	C-AL	10uF	1	SNA	
C105	2201-000322	C-CERAMIC,DISC	2.2nF	1	SNA	
C106	2201-000322	C-CERAMIC,DISC	2.2nF	1	SNA	
C107	2401-001552	C-AL	47uF	1	SNA	
C108	2203-001414	C-CER,CHIP	330nF	1	SNA	
C109	2203-000192	C-CER,CHIP	100nF	1	SNA	
C110	2401-000832	C-AL	220uF	1	SNA	
C112	2203-000192	C-CER,CHIP	100nF	1	SNA	
C113	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C114	2401-000832	C-AL	220uF	1	SNA	
C116	2203-000192	C-CER,CHIP	100nF	1	SNA	
C117	2203-000192	C-CER,CHIP	100nF	1	SNA	
C118	2401-002300	C-AL	47uF	1	SNA	
C119	2401-000832	C-AL	220uF	1	SNA	
C121	2203-000192	C-CER,CHIP	100nF	1	SNA	
C122	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C123	2401-000303	C-AL	100nF	1	SNA	
C201	2203-001562	C-CER,CHIP	10nF	1	SNA	
C202	2203-000189	C-CER,CHIP	100nF	1	SNA	
C203	2203-001562	C-CER,CHIP	10nF	1	SNA	
C204	2203-001562	C-CER,CHIP	10nF	1	SNA	
C205	2203-001562	C-CER,CHIP	10nF	1	SNA	
C301	2203-001562	C-CER,CHIP	10nF	1	SNA	
C302	2203-000192	C-CER,CHIP	100nF	1	SNA	
C303	2203-000192	C-CER,CHIP	100nF	1	SNA	
C304	2203-000192	C-CER,CHIP	100nF	1	SNA	
C305	2203-000192	C-CER,CHIP	100nF	1	SNA	
C306	2203-000192	C-CER,CHIP	100nF	1	SNA	
C307	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C308	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C309	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C310	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C401	2401-002300	C-AL	47uF	1	SNA	
C402	2401-002300	C-AL	47uF	1	SNA	
C403	2401-002300	C-AL	47uF	1	SNA	
C404	2203-000192	C-CER,CHIP	100nF	1	SNA	
C405	2203-000192	C-CER,CHIP	100nF	1	SNA	
C406	2203-000192	C-CER,CHIP	100nF	1	SNA	
C407	2203-000192	C-CER,CHIP	100nF	1	SNA	
C408	2203-000192	C-CER,CHIP	100nF	1	SNA	
C409	2203-000192	C-CER,CHIP	100nF	1	SNA	
C410	2203-000192	C-CER,CHIP	100nF	1	SNA	
C411	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C412	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C413	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C414	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C415	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C416	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C417	2203-000192	C-CER,CHIP	100nF	1	SNA	
C418	2203-000192	C-CER,CHIP	100nF	1	SNA	
C419	2203-000609	C-CER,CHIP	22nF	1	SNA	
C420	2203-000609	C-CER,CHIP	22nF	1	SNA	
C421	2401-002274	C-AL	220uF	1	SNA	
C422	2306-000123	C-FILM,LEAD-PPF	100nF	1	SNA	
C423	2203-000495	C-CER,CHIP	2.2nF	1	SNA	
C424	2203-000891	C-CER,CHIP	4.7nF	1	SNA	
C425	2203-000495	C-CER,CHIP	2.2nF	1	SNA	
C426	2203-000818	C-CER,CHIP	0.033nF	1	SNA	
C427	2203-001562	C-CER,CHIP	10nF	1	SNA	
C428	2401-001552	C-AL	47uF	1	SNA	
C429	2203-000192	C-CER,CHIP	100nF	1	SNA	
C430	2203-000192	C-CER,CHIP	100nF	1	SNA	
C501	2203-000192	C-CER,CHIP	100nF	1	SNA	
C502	2203-000192	C-CER,CHIP	100nF	1	SNA	
C503	2203-000192	C-CER,CHIP	100nF	1	SNA	
C504	2203-000192	C-CER,CHIP	100nF	1	SNA	
C505	2203-000189	C-CER,CHIP	100nF	1	SNA	
C506	2203-000189	C-CER,CHIP	100nF	1	SNA	
C507	2203-000189	C-CER,CHIP	100nF	1	SNA	
C508	2203-000189	C-CER,CHIP	100nF	1	SNA	
C509	2203-000189	C-CER,CHIP	100nF	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C510	2203-000189	C-CER,CHIP	100nF	1	SNA	
C511	2203-000189	C-CER,CHIP	100nF	1	SNA	
C512	2203-000189	C-CER,CHIP	100nF	1	SNA	
C513	2203-000189	C-CER,CHIP	100nF	1	SNA	
C517	2203-000192	C-CER,CHIP	100nF	1	SNA	
C518	2203-000192	C-CER,CHIP	100nF	1	SNA	
C519	2203-000192	C-CER,CHIP	100nF	1	SNA	
C520	2203-000192	C-CER,CHIP	100nF	1	SNA	
C521	2203-000192	C-CER,CHIP	100nF	1	SNA	
C522	2203-000192	C-CER,CHIP	100nF	1	SNA	
C523	2203-000192	C-CER,CHIP	100nF	1	SNA	
C524	2203-000192	C-CER,CHIP	100nF	1	SNA	
C602	2203-001562	C-CER,CHIP	10nF	1	SNA	
C603	2203-001562	C-CER,CHIP	10nF	1	SNA	
C701	2203-000189	C-CER,CHIP	100nF	1	SNA	
C702	2203-000189	C-CER,CHIP	100nF	1	SNA	
C703	2203-000189	C-CER,CHIP	100nF	1	SNA	
C704	2203-000189	C-CER,CHIP	100nF	1	SNA	
C705	2203-000189	C-CER,CHIP	100nF	1	SNA	
C706	2203-000192	C-CER,CHIP	100nF	1	SNA	
C707	2203-000189	C-CER,CHIP	100nF	1	SNA	
C708	2203-000189	C-CER,CHIP	100nF	1	SNA	
C709	2401-003036	C-AL	100uF	1	SNA	
C710	2203-000189	C-CER,CHIP	100nF	1	SNA	
C711	2203-000189	C-CER,CHIP	100nF	1	SNA	
C713	2203-000189	C-CER,CHIP	100nF	1	SNA	
C714	2401-001552	C-AL	47uF	1	SNA	
C715	2203-000189	C-CER,CHIP	100nF	1	SNA	
C721	2203-000192	C-CER,CHIP	100nF	1	SNA	
C722	2203-000189	C-CER,CHIP	100nF	1	SNA	
C801	2203-001562	C-CER,CHIP	10nF	1	SNA	
C802	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C803	2306-000123	C-FILM,LEAD-PPF	100nF	1	SNA	
C805	2401-000832	C-AL	220uF	1	SNA	
C900	2203-001562	C-CER,CHIP	10nF	1	SNA	
C901	2203-001562	C-CER,CHIP	10nF	1	SNA	
C902	2203-001562	C-CER,CHIP	10nF	1	SNA	
C907	2203-001562	C-CER,CHIP	10nF	1	SNA	
C908	2203-001562	C-CER,CHIP	10nF	1	SNA	
CD31	0406-001109	DIODE-TVS	SAC5.0	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CD32	0406-001109	DIODE-TVS	SAC5.0	1	SNA	
CN30	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,ANGLE,WHT	1	SNA	
CN50	DB98-22299A	ASS'Y-HOOK WHT	SMAW250A-04,WHT	1	SNA	
CN51	DB98-22298A	ASS'Y-HOOK RED	SMAW250A-04,RED	1	SNA	
CN61	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,STRAIGHT	1	SNA	
D101	DB98-16591A	ASS'Y-DIODE RECTIFIER	FEP30	1	SNA	
D102	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D103	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D104	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D105	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D106	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D201	0407-000123	DIODE-ARRAY	DAN202K,80V	1	SNA	
D401	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D402	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D403	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D451	0407-000123	DIODE-ARRAY	DAN202K,80V	1	SNA	
EEPROM-DATA	DB46-00014D	S/W FIRMWARE	EEPROM	1	SNA	
IC11	1203-003527	IC-PWM CONTROLLER	TOP243	1	SNA	
IC12	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC13	1203-002948	IC-POSI.ADJUST REG.	TL431ACD	1	SNA	
IC16	DB95-00594A	ASS'Y-VOLTAGE REGULATOR	KIA78M05,KA78M05	1	SNA	
IC19	DB95-00594A	ASS'Y-VOLTAGE REGULATOR	KIA78M05,KA78M05	1	SNA	
IC20	1006-001325	IC-BUS TRANSCEIVER	LMS1487	1	SNA	
IC21	1202-000104	IC-VOLTAGE COMP.	LM393	1	SNA	
IC30	0801-000393	IC-CMOS LOGIC	74HC86	1	SNA	
IC31	0604-001003	PHOTO-COUPLER	PC814	1	SNA	
IC41	1201-000166	IC-OP AMP	LM358	1	SNA	
IC42	1202-000104	IC-VOLTAGE COMP.	LM393	1	SNA	
IC50	DB09-00415A	IC MICOM	MB90F823	1	SNA	
IC51	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC52	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC53	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC54	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC55	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC59	1203-003334	IC-RESET	S-801	1	SNA	
IC61	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC62	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC70	DB09-00453A	IC MICOM	MB90F823	1	SNA	
IC701	1103-001175	IC-EEPROM	93LC56	1	SNA	
IC702	1203-003334	IC-RESET	S-801	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
IC72	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC81	DB95-00595A	ASS'Y-PHOTO COUPLER	TLP250	1	SNA	
IPM	DB95-00631A	ASS'Y-IPM	PS21867-P	1	SNA	
L/W COMM 485	DB39-01017D	CONNECT WIRE	RED/BLU	1	SNA	
L/W EARTH	DB39-00514H	CONNECT WIRE-EARTH	YELGRN	1	SNA	
L/W POWER L	DB39-00765R	WIRE HARNESS	BRN	1	SNA	
L/W POWER R	DB39-00765S	HARNESS POWER-N	SKYBLU	1	SNA	
LED1	DB98-16601A	ASS'Y-LED RED	RED	1	SNA	
LED2	DB98-16600A	ASS'Y-LED GREEN	GRN	1	SNA	
LED3	DB98-16602A	ASS'Y-LED YEL	YEL	1	SNA	
PCB	DB41-00432A	PCB MAIN-BOARD	PCB-2L	1	SNA	
PT02	DB26-00049A	TRANS PULSE	PT_50	1	SNA	
Q801	0504-000127	TR-DIGITAL	KSR1102	1	SNA	
Q803	0508-001154	TR-IGBT	SGH80N60UF	1	SNA	
Q904	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q905	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q906	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q907	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
R001	2006-001080	R-CEMENT(S)	200ohm	1	SNA	
R101	2003-000855	R-METAL OXIDE(S)	47Kohm	1	SNA	
R102	2007-001074	R-CHIP	6.8ohm	1	SNA	
R103	2007-000468	R-CHIP	1Kohm	1	SNA	
R104	2007-000686	R-CHIP	3.3Kohm	1	SNA	
R105	2007-001222	R-CHIP	9.09Kohm	1	SNA	
R106	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R107	2003-000708	R-METAL OXIDE(S)	47ohm	1	SNA	
R112	2007-000924	R-CHIP	470Kohm	1	SNA	
R113	2007-000924	R-CHIP	470Kohm	1	SNA	
R114	2007-000924	R-CHIP	470Kohm	1	SNA	
R115	2007-000385	R-CHIP	14.3Kohm	1	SNA	
R116	2007-008261	R-CHIP	150Kohm	1	SNA	
R117	2007-008261	R-CHIP	150Kohm	1	SNA	
R118	2007-008261	R-CHIP	150Kohm	1	SNA	
R201	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R202	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R203	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R204	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R205	2007-000671	R-CHIP	2Kohm	1	SNA	
R206	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R207	2007-002667	R-CHIP	90.9Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R208	2007-000671	R-CHIP	2Kohm	1	SNA	
R301	2007-000023	R-CHIP	120ohm	1	SNA	
R302	2007-000300	R-CHIP	10Kohm	1	SNA	
R303	2007-000300	R-CHIP	10Kohm	1	SNA	
R304	2007-000300	R-CHIP	10Kohm	1	SNA	
R305	2007-000300	R-CHIP	10Kohm	1	SNA	
R306	2007-000300	R-CHIP	10Kohm	1	SNA	
R307	2007-000656	R-CHIP	27Kohm	1	SNA	
R308	2007-000656	R-CHIP	27Kohm	1	SNA	
R311	2007-000656	R-CHIP	27Kohm	1	SNA	
R312	2007-000656	R-CHIP	27Kohm	1	SNA	
R315	2007-000300	R-CHIP	10Kohm	1	SNA	
R401	2007-000290	R-CHIP	100ohm	1	SNA	
R402	2007-000290	R-CHIP	100ohm	1	SNA	
R403	2007-000290	R-CHIP	100ohm	1	SNA	
R404	2007-000290	R-CHIP	100ohm	1	SNA	
R405	2007-000290	R-CHIP	100ohm	1	SNA	
R406	2007-000290	R-CHIP	100ohm	1	SNA	
R407	2007-000872	R-CHIP	4.7Kohm	1	SNA	
R408	2007-000781	R-CHIP	33ohm	1	SNA	
R409	2007-000781	R-CHIP	33ohm	1	SNA	
R410	2007-000781	R-CHIP	33ohm	1	SNA	
R411	2007-000254	R-CHIP	1.62Kohm	1	SNA	
R412	2007-000928	R-CHIP	470ohm	1	SNA	
R413	2007-008261	R-CHIP	150Kohm	1	SNA	
R414	2007-008261	R-CHIP	150Kohm	1	SNA	
R415	2007-008261	R-CHIP	150Kohm	1	SNA	
R416	2007-000254	R-CHIP	1.62Kohm	1	SNA	
R417	2007-008562	R-CHIP	30.1ohm	1	SNA	
R418	2007-009114	R-CHIP	110Kohm	1	SNA	
R419	2007-009114	R-CHIP	110Kohm	1	SNA	
R420	2007-000515	R-CHIP	2.7Kohm	1	SNA	
R421	DB95-00769A	ASS'Y-R CEMENT	10mohm,15W	1	SNA	
R422	2007-000938	R-CHIP	47Kohm	1	SNA	
R423	2007-000546	R-CHIP	20Kohm	1	SNA	
R424	2007-000868	R-CHIP	4.7Kohm	1	SNA	
R425	2007-000290	R-CHIP	100ohm	1	SNA	
R426	2007-000290	R-CHIP	100ohm	1	SNA	
R427	2007-000468	R-CHIP	1Kohm	1	SNA	
R429	2007-008261	R-CHIP	150Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R430	2007-008261	R-CHIP	150Kohm	1	SNA	
R431	2007-008261	R-CHIP	150Kohm	1	SNA	
R432	2007-009114	R-CHIP	110Kohm	1	SNA	
R500	2007-000455	R-CHIP	18Kohm	1	SNA	
R501	2007-000455	R-CHIP	18Kohm	1	SNA	
R502	2007-000455	R-CHIP	18Kohm	1	SNA	
R503	2007-000614	R-CHIP	24Kohm	1	SNA	
R504	2007-000076	R-CHIP	330ohm	1	SNA	
R505	2007-000076	R-CHIP	330ohm	1	SNA	
R506	2007-000076	R-CHIP	330ohm	1	SNA	
R507	2007-000076	R-CHIP	330ohm	1	SNA	
R508	2007-000076	R-CHIP	330ohm	1	SNA	
R509	2007-000090	R-CHIP	10Kohm	1	SNA	
R510	2007-000109	R-CHIP	1Mohm	1	SNA	
R511	2007-000965	R-CHIP	5.1Kohm	1	SNA	
R512	2007-000078	R-CHIP	1Kohm	1	SNA	
R513	2007-000076	R-CHIP	330ohm	1	SNA	
R514	2007-000614	R-CHIP	24Kohm	1	SNA	
R515	2007-000455	R-CHIP	18Kohm	1	SNA	
R516	2007-000455	R-CHIP	18Kohm	1	SNA	
R517	2007-000455	R-CHIP	18Kohm	1	SNA	
R518	2007-000076	R-CHIP	330ohm	1	SNA	
R519	2007-000076	R-CHIP	330ohm	1	SNA	
R520	2007-000076	R-CHIP	330ohm	1	SNA	
R521	2007-000076	R-CHIP	330ohm	1	SNA	
R522	2007-000076	R-CHIP	330ohm	1	SNA	
R523	2007-000076	R-CHIP	330ohm	1	SNA	
R524	2007-000455	R-CHIP	18Kohm	1	SNA	
R525	2007-000455	R-CHIP	18Kohm	1	SNA	
R526	2007-000455	R-CHIP	18Kohm	1	SNA	
R527	2007-000455	R-CHIP	18Kohm	1	SNA	
R601	2007-000468	R-CHIP	1Kohm	1	SNA	
R602	2007-000766	R-CHIP	330ohm	1	SNA	
R603	2007-000766	R-CHIP	330ohm	1	SNA	
R604	2007-000468	R-CHIP	1Kohm	1	SNA	
R701	2007-000076	R-CHIP	330ohm	1	SNA	
R702	2007-000076	R-CHIP	330ohm	1	SNA	
R703	2007-000109	R-CHIP	1Mohm	1	SNA	
R704	2007-000078	R-CHIP	1Kohm	1	SNA	
R705	2007-000965	R-CHIP	5.1Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R706	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R707	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R708	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R709	2007-000090	R-CHIP	10Kohm	1	SNA	
R710	2007-000090	R-CHIP	10Kohm	1	SNA	
R711	2007-000090	R-CHIP	10Kohm	1	SNA	
R712	2007-000090	R-CHIP	10Kohm	1	SNA	
R713	2007-000090	R-CHIP	10Kohm	1	SNA	
R721	2007-000763	R-CHIP	330ohm	1	SNA	
R722	2007-000613	R-CHIP	24Kohm	1	SNA	
R723	2007-000614	R-CHIP	24Kohm	1	SNA	
R724	2007-000076	R-CHIP	330ohm	1	SNA	
R805	2007-000300	R-CHIP	10Kohm	1	SNA	
R806	2007-000950	R-CHIP	47ohm	1	SNA	
R807	2007-000553	R-CHIP	20ohm	1	SNA	
R808	2007-000931	R-CHIP	470ohm	1	SNA	
R900	2007-001318	R-CHIP	1Kohm	1	SNA	
R901	2007-001318	R-CHIP	1Kohm	1	SNA	
R902	2007-001318	R-CHIP	1Kohm	1	SNA	
R903	2007-001318	R-CHIP	1Kohm	1	SNA	
R904	2007-001318	R-CHIP	1Kohm	1	SNA	
R905	2007-001318	R-CHIP	1Kohm	1	SNA	
R906	2007-001318	R-CHIP	1Kohm	1	SNA	
R907	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R908	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R909	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R910	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R911	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R912	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R916	2007-000300	R-CHIP	10Kohm	1	SNA	
R917	2007-000300	R-CHIP	10Kohm	1	SNA	
RY01	3501-001169	RELAY-POWER	12VDC	1	SA	
RY03	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY04	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY05	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY31	3501-001248	RELAY-MINIATURE	12V	1	SNA	
XTAL01	2802-001179	RESONATOR-CERAMIC	4MHz	1	SNA	
XTAL51	2802-001179	RESONATOR-CERAMIC	4MHz	1	SNA	
ZD21	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	
ZD22	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545F(UQB18J6WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
ZD72	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BD01	DB98-16586A	ASS'Y-DIODE	GSIB2510	1	SNA	
C/W 4 WAY	DB39-00649E	CONNECT WIRE	AWG 18	1	SNA	
C/W COMP	DB39-00746C	CONNECT WIRE-COMP	AWG 14	1	SNA	
C/W REACTOR	DB39-00747E	CONNECT WIRE	AWG 14	1	SNA	
C008	2301-000141	C-FILM,LEAD-PEF	10nF	1	SNA	
C101	2401-003740	C-AL	560uF	1	SNA	
C102	2401-003740	C-AL	560uF	1	SNA	
C103	2401-003740	C-AL	560uF	1	SNA	
C104	2401-000470	C-AL	10uF	1	SNA	
C105	2201-000322	C-CERAMIC,DISC	2.2nF	1	SNA	
C106	2201-000322	C-CERAMIC,DISC	2.2nF	1	SNA	
C107	2401-001552	C-AL	47uF	1	SNA	
C108	2203-001414	C-CER,CHIP	330nF	1	SNA	
C109	2203-000192	C-CER,CHIP	100nF	1	SNA	
C110	2401-000832	C-AL	220uF	1	SNA	
C112	2203-000192	C-CER,CHIP	100nF	1	SNA	
C113	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C114	2401-000832	C-AL	220uF	1	SNA	
C116	2203-000192	C-CER,CHIP	100nF	1	SNA	
C117	2203-000192	C-CER,CHIP	100nF	1	SNA	
C118	2401-002300	C-AL	47uF	1	SNA	
C119	2401-000832	C-AL	220uF	1	SNA	
C121	2203-000192	C-CER,CHIP	100nF	1	SNA	
C122	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C123	2401-000303	C-AL	100nF	1	SNA	
C201	2203-001562	C-CER,CHIP	10nF	1	SNA	
C202	2203-000189	C-CER,CHIP	100nF	1	SNA	
C203	2203-001562	C-CER,CHIP	10nF	1	SNA	
C204	2203-001562	C-CER,CHIP	10nF	1	SNA	
C205	2203-001562	C-CER,CHIP	10nF	1	SNA	
C301	2203-001562	C-CER,CHIP	10nF	1	SNA	
C302	2203-000192	C-CER,CHIP	100nF	1	SNA	
C303	2203-000192	C-CER,CHIP	100nF	1	SNA	
C304	2203-000192	C-CER,CHIP	100nF	1	SNA	
C305	2203-000192	C-CER,CHIP	100nF	1	SNA	
C306	2203-000192	C-CER,CHIP	100nF	1	SNA	
C307	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C308	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C309	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	
C310	2201-000154	C-CERAMIC,DISC	10nF	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C401	2401-002300	C-AL	47uF	1	SNA	
C402	2401-002300	C-AL	47uF	1	SNA	
C403	2401-002300	C-AL	47uF	1	SNA	
C404	2203-000192	C-CER,CHIP	100nF	1	SNA	
C405	2203-000192	C-CER,CHIP	100nF	1	SNA	
C406	2203-000192	C-CER,CHIP	100nF	1	SNA	
C407	2203-000192	C-CER,CHIP	100nF	1	SNA	
C408	2203-000192	C-CER,CHIP	100nF	1	SNA	
C409	2203-000192	C-CER,CHIP	100nF	1	SNA	
C410	2203-000192	C-CER,CHIP	100nF	1	SNA	
C411	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C412	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C413	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C414	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C415	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C416	2203-000126	C-CER,CHIP	1.2nF	1	SNA	
C417	2203-000192	C-CER,CHIP	100nF	1	SNA	
C418	2203-000192	C-CER,CHIP	100nF	1	SNA	
C419	2203-000609	C-CER,CHIP	22nF	1	SNA	
C420	2203-000609	C-CER,CHIP	22nF	1	SNA	
C421	2401-002274	C-AL	220uF	1	SNA	
C422	2306-000123	C-FILM,LEAD-PPF	100nF	1	SNA	
C423	2203-000495	C-CER,CHIP	2.2nF	1	SNA	
C424	2203-000891	C-CER,CHIP	4.7nF	1	SNA	
C425	2203-000495	C-CER,CHIP	2.2nF	1	SNA	
C426	2203-000818	C-CER,CHIP	0.033nF	1	SNA	
C427	2203-001562	C-CER,CHIP	10nF	1	SNA	
C428	2401-001552	C-AL	47uF	1	SNA	
C429	2203-000192	C-CER,CHIP	100nF	1	SNA	
C430	2203-000192	C-CER,CHIP	100nF	1	SNA	
C501	2203-000192	C-CER,CHIP	100nF	1	SNA	
C502	2203-000192	C-CER,CHIP	100nF	1	SNA	
C503	2203-000192	C-CER,CHIP	100nF	1	SNA	
C504	2203-000192	C-CER,CHIP	100nF	1	SNA	
C505	2203-000189	C-CER,CHIP	100nF	1	SNA	
C506	2203-000189	C-CER,CHIP	100nF	1	SNA	
C507	2203-000189	C-CER,CHIP	100nF	1	SNA	
C508	2203-000189	C-CER,CHIP	100nF	1	SNA	
C509	2203-000189	C-CER,CHIP	100nF	1	SNA	
C510	2203-000189	C-CER,CHIP	100nF	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C511	2203-000189	C-CER,CHIP	100nF	1	SNA	
C512	2203-000189	C-CER,CHIP	100nF	1	SNA	
C513	2203-000189	C-CER,CHIP	100nF	1	SNA	
C517	2203-000192	C-CER,CHIP	100nF	1	SNA	
C518	2203-000192	C-CER,CHIP	100nF	1	SNA	
C519	2203-000192	C-CER,CHIP	100nF	1	SNA	
C520	2203-000192	C-CER,CHIP	100nF	1	SNA	
C521	2203-000192	C-CER,CHIP	100nF	1	SNA	
C522	2203-000192	C-CER,CHIP	100nF	1	SNA	
C523	2203-000192	C-CER,CHIP	100nF	1	SNA	
C524	2203-000192	C-CER,CHIP	100nF	1	SNA	
C602	2203-001562	C-CER,CHIP	10nF	1	SNA	
C603	2203-001562	C-CER,CHIP	10nF	1	SNA	
C701	2203-000189	C-CER,CHIP	100nF	1	SNA	
C702	2203-000189	C-CER,CHIP	100nF	1	SNA	
C703	2203-000189	C-CER,CHIP	100nF	1	SNA	
C704	2203-000189	C-CER,CHIP	100nF	1	SNA	
C705	2203-000189	C-CER,CHIP	100nF	1	SNA	
C706	2203-000192	C-CER,CHIP	100nF	1	SNA	
C707	2203-000189	C-CER,CHIP	100nF	1	SNA	
C708	2203-000189	C-CER,CHIP	100nF	1	SNA	
C709	2401-003036	C-AL	100uF	1	SNA	
C710	2203-000189	C-CER,CHIP	100nF	1	SNA	
C711	2203-000189	C-CER,CHIP	100nF	1	SNA	
C713	2203-000189	C-CER,CHIP	100nF	1	SNA	
C714	2401-001552	C-AL	47uF	1	SNA	
C715	2203-000189	C-CER,CHIP	100nF	1	SNA	
C721	2203-000192	C-CER,CHIP	100nF	1	SNA	
C722	2203-000189	C-CER,CHIP	100nF	1	SNA	
C801	2203-001562	C-CER,CHIP	10nF	1	SNA	
C802	2203-005261	C-CER,CHIP	1000nF	1	SNA	
C803	2306-000123	C-FILM,LEAD-PPF	100nF	1	SNA	
C805	2401-000832	C-AL	220uF	1	SNA	
C900	2203-001562	C-CER,CHIP	10nF	1	SNA	
C901	2203-001562	C-CER,CHIP	10nF	1	SNA	
C902	2203-001562	C-CER,CHIP	10nF	1	SNA	
C907	2203-001562	C-CER,CHIP	10nF	1	SNA	
C908	2203-001562	C-CER,CHIP	10nF	1	SNA	
CD31	0406-001109	DIODE-TVS	SAC5.0	1	SNA	
CD32	0406-001109	DIODE-TVS	SAC5.0	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN30	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,ANGLE,WHT	1	SNA	
CN40	3711-003381	CONNECTOR-HEADER	1WALL,5P,ANGLE	1	SNA	
CN50	DB98-22299A	ASS'Y-HOOK WHT	SMAW250A-04,WHT	1	SNA	
CN51	DB98-22298A	ASS'Y-HOOK RED	SMAW250A-04,RED	1	SNA	
CN61	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,STRAIGHT	1	SNA	
D101	DB98-16591A	ASS'Y-DIODE RECTIFIER	FEP30	1	SNA	
D102	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D103	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D104	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D105	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D106	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A	1	SNA	
D201	0407-000123	DIODE-ARRAY	DAN202K,80V	1	SNA	
D401	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D402	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D403	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A	1	SNA	
D451	0407-000123	DIODE-ARRAY	DAN202K,80V	1	SNA	
EEPROM-DATA	DB46-00015D	S/W FIRMWARE	EEPROM	1	SNA	
IC11	1203-003527	IC-PWM CONTROLLER	TOP243	1	SNA	
IC12	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC13	1203-002948	IC-POSI.ADJUST REG.	TL431ACD	1	SNA	
IC16	DB95-00594A	ASS'Y-VOLTAGE REGULATOR	KIA78M05,KA78M05	1	SNA	
IC19	DB95-00594A	ASS'Y-VOLTAGE REGULATOR	KIA78M05,KA78M05	1	SNA	
IC20	1006-001325	IC-BUS TRANSCEIVER	LMS1487	1	SNA	
IC21	1202-000104	IC-VOLTAGE COMP.	LM393	1	SNA	
IC30	0801-000393	IC-CMOS LOGIC	74HC86	1	SNA	
IC31	0604-001003	PHOTO-COUPLER	PC814	1	SNA	
IC41	1201-000166	IC-OP AMP	LM358	1	SNA	
IC42	1202-000104	IC-VOLTAGE COMP.	LM393	1	SNA	
IC50	DB09-00415A	IC MICOM	MB90F823	1	SNA	
IC51	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC52	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC53	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC54	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC55	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC59	1203-003334	IC-RESET	S-801	1	SNA	
IC61	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC62	0604-001172	PHOTO-COUPLER	PC181	1	SNA	
IC70	DB09-00453A	IC MICOM	MB90F823	1	SNA	
IC701	1103-001175	IC-EEPROM	93LC56	1	SNA	
IC702	1203-003334	IC-RESET	S-801	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
IC72	0506-000175	TR-ARRAY	ULN2003	1	SNA	
IC81	DB95-00595A	ASS'Y-PHOTO COUPLER	TLP250	1	SNA	
IPM	DB95-00631A	ASS'Y-IPM	PS21867-P	1	SNA	
L/W COMM 485	DB39-01017D	CONNECT WIRE	RED/BLU	1	SNA	
L/W EARTH	DB39-00514H	CONNECT WIRE-EARTH	YELGRN	1	SNA	
L/W POWER L	DB39-00765R	WIRE HARNESS	BRN	1	SNA	
L/W POWER R	DB39-00765S	HARNESS POWER-N	SKYBLU	1	SNA	
LED1	DB98-16601A	ASS'Y-LED RED	RED	1	SNA	
LED2	DB98-16600A	ASS'Y-LED GREEN	GRN	1	SNA	
LED3	DB98-16602A	ASS'Y-LED YEL	YEL	1	SNA	
PCB	DB41-00432A	PCB MAIN-BOARD	PCB-2L	1	SNA	
PT02	DB26-00049A	TRANS PULSE	PT_50	1	SNA	
Q801	0504-000127	TR-DIGITAL	KSR1102	1	SNA	
Q803	0508-001154	TR-IGBT	SGH80N60UF	1	SNA	
Q904	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q905	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q906	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
Q907	0504-000001	TR-DIGITAL	DTA114EKA	1	SNA	
R001	2006-001080	R-CEMENT(S)	200ohm	1	SNA	
R101	2003-000855	R-METAL OXIDE(S)	47Kohm	1	SNA	
R102	2007-001074	R-CHIP	6.8ohm	1	SNA	
R103	2007-000468	R-CHIP	1Kohm	1	SNA	
R104	2007-000686	R-CHIP	3.3Kohm	1	SNA	
R105	2007-001222	R-CHIP	9.09Kohm	1	SNA	
R106	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R107	2003-000708	R-METAL OXIDE(S)	47ohm	1	SNA	
R112	2007-000924	R-CHIP	470Kohm	1	SNA	
R113	2007-000924	R-CHIP	470Kohm	1	SNA	
R114	2007-000924	R-CHIP	470Kohm	1	SNA	
R115	2007-000385	R-CHIP	14.3Kohm	1	SNA	
R116	2007-008261	R-CHIP	150Kohm	1	SNA	
R117	2007-008261	R-CHIP	150Kohm	1	SNA	
R118	2007-008261	R-CHIP	150Kohm	1	SNA	
R201	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R202	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R203	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R204	2007-000263	R-CHIP	1.82Kohm	1	SNA	
R205	2007-000671	R-CHIP	2Kohm	1	SNA	
R206	2007-002667	R-CHIP	90.9Kohm	1	SNA	
R207	2007-002667	R-CHIP	90.9Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R208	2007-000671	R-CHIP	2Kohm	1	SNA	
R301	2007-000023	R-CHIP	120ohm	1	SNA	
R302	2007-000300	R-CHIP	10Kohm	1	SNA	
R303	2007-000300	R-CHIP	10Kohm	1	SNA	
R304	2007-000300	R-CHIP	10Kohm	1	SNA	
R305	2007-000300	R-CHIP	10Kohm	1	SNA	
R306	2007-000300	R-CHIP	10Kohm	1	SNA	
R307	2007-000656	R-CHIP	27Kohm	1	SNA	
R308	2007-000656	R-CHIP	27Kohm	1	SNA	
R311	2007-000656	R-CHIP	27Kohm	1	SNA	
R312	2007-000656	R-CHIP	27Kohm	1	SNA	
R315	2007-000300	R-CHIP	10Kohm	1	SNA	
R401	2007-000290	R-CHIP	100ohm	1	SNA	
R402	2007-000290	R-CHIP	100ohm	1	SNA	
R403	2007-000290	R-CHIP	100ohm	1	SNA	
R404	2007-000290	R-CHIP	100ohm	1	SNA	
R405	2007-000290	R-CHIP	100ohm	1	SNA	
R406	2007-000290	R-CHIP	100ohm	1	SNA	
R407	2007-000872	R-CHIP	4.7Kohm	1	SNA	
R408	2007-000781	R-CHIP	33ohm	1	SNA	
R409	2007-000781	R-CHIP	33ohm	1	SNA	
R410	2007-000781	R-CHIP	33ohm	1	SNA	
R411	2007-000254	R-CHIP	1.62Kohm	1	SNA	
R412	2007-000928	R-CHIP	470ohm	1	SNA	
R413	2007-008261	R-CHIP	150Kohm	1	SNA	
R414	2007-008261	R-CHIP	150Kohm	1	SNA	
R415	2007-008261	R-CHIP	150Kohm	1	SNA	
R416	2007-000254	R-CHIP	1.62Kohm	1	SNA	
R417	2007-008562	R-CHIP	30.1ohm	1	SNA	
R418	2007-009114	R-CHIP	110Kohm	1	SNA	
R419	2007-009114	R-CHIP	110Kohm	1	SNA	
R420	2007-000515	R-CHIP	2.7Kohm	1	SNA	
R421	DB95-00769A	ASS'Y-R CEMENT	10mohm,15W	1	SNA	
R422	2007-000938	R-CHIP	47Kohm	1	SNA	
R423	2007-000546	R-CHIP	20Kohm	1	SNA	
R424	2007-000868	R-CHIP	4.7Kohm	1	SNA	
R425	2007-000290	R-CHIP	100ohm	1	SNA	
R426	2007-000290	R-CHIP	100ohm	1	SNA	
R427	2007-000468	R-CHIP	1Kohm	1	SNA	
R429	2007-008261	R-CHIP	150Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R430	2007-008261	R-CHIP	150Kohm	1	SNA	
R431	2007-008261	R-CHIP	150Kohm	1	SNA	
R432	2007-009114	R-CHIP	110Kohm	1	SNA	
R500	2007-000455	R-CHIP	18Kohm	1	SNA	
R501	2007-000455	R-CHIP	18Kohm	1	SNA	
R502	2007-000455	R-CHIP	18Kohm	1	SNA	
R503	2007-000614	R-CHIP	24Kohm	1	SNA	
R504	2007-000076	R-CHIP	330ohm	1	SNA	
R505	2007-000076	R-CHIP	330ohm	1	SNA	
R506	2007-000076	R-CHIP	330ohm	1	SNA	
R507	2007-000076	R-CHIP	330ohm	1	SNA	
R508	2007-000076	R-CHIP	330ohm	1	SNA	
R509	2007-000090	R-CHIP	10Kohm	1	SNA	
R510	2007-000109	R-CHIP	1Mohm	1	SNA	
R511	2007-000965	R-CHIP	5.1Kohm	1	SNA	
R512	2007-000078	R-CHIP	1Kohm	1	SNA	
R513	2007-000076	R-CHIP	330ohm	1	SNA	
R514	2007-000614	R-CHIP	24Kohm	1	SNA	
R515	2007-000455	R-CHIP	18Kohm	1	SNA	
R516	2007-000455	R-CHIP	18Kohm	1	SNA	
R517	2007-000455	R-CHIP	18Kohm	1	SNA	
R518	2007-000076	R-CHIP	330ohm	1	SNA	
R519	2007-000076	R-CHIP	330ohm	1	SNA	
R520	2007-000076	R-CHIP	330ohm	1	SNA	
R521	2007-000076	R-CHIP	330ohm	1	SNA	
R522	2007-000076	R-CHIP	330ohm	1	SNA	
R523	2007-000076	R-CHIP	330ohm	1	SNA	
R524	2007-000455	R-CHIP	18Kohm	1	SNA	
R525	2007-000455	R-CHIP	18Kohm	1	SNA	
R526	2007-000455	R-CHIP	18Kohm	1	SNA	
R527	2007-000455	R-CHIP	18Kohm	1	SNA	
R601	2007-000468	R-CHIP	1Kohm	1	SNA	
R602	2007-000766	R-CHIP	330ohm	1	SNA	
R603	2007-000766	R-CHIP	330ohm	1	SNA	
R604	2007-000468	R-CHIP	1Kohm	1	SNA	
R701	2007-000076	R-CHIP	330ohm	1	SNA	
R702	2007-000076	R-CHIP	330ohm	1	SNA	
R703	2007-000109	R-CHIP	1Mohm	1	SNA	
R704	2007-000078	R-CHIP	1Kohm	1	SNA	
R705	2007-000965	R-CHIP	5.1Kohm	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R706	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R707	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R708	2007-000511	R-CHIP	2.4Kohm	1	SNA	
R709	2007-000090	R-CHIP	10Kohm	1	SNA	
R710	2007-000090	R-CHIP	10Kohm	1	SNA	
R711	2007-000090	R-CHIP	10Kohm	1	SNA	
R712	2007-000090	R-CHIP	10Kohm	1	SNA	
R713	2007-000090	R-CHIP	10Kohm	1	SNA	
R721	2007-000763	R-CHIP	330ohm	1	SNA	
R722	2007-000613	R-CHIP	24Kohm	1	SNA	
R723	2007-000614	R-CHIP	24Kohm	1	SNA	
R724	2007-000076	R-CHIP	330ohm	1	SNA	
R805	2007-000300	R-CHIP	10Kohm	1	SNA	
R806	2007-000950	R-CHIP	47ohm	1	SNA	
R807	2007-000553	R-CHIP	20ohm	1	SNA	
R808	2007-000931	R-CHIP	470ohm	1	SNA	
R900	2007-001318	R-CHIP	1Kohm	1	SNA	
R901	2007-001318	R-CHIP	1Kohm	1	SNA	
R902	2007-001318	R-CHIP	1Kohm	1	SNA	
R903	2007-001318	R-CHIP	1Kohm	1	SNA	
R904	2007-001318	R-CHIP	1Kohm	1	SNA	
R905	2007-001318	R-CHIP	1Kohm	1	SNA	
R906	2007-001318	R-CHIP	1Kohm	1	SNA	
R907	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R908	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R909	2007-001177	R-CHIP	8.2Kohm	1	SNA	
R910	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R911	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R912	2007-000964	R-CHIP	5.1Kohm	1	SNA	
R916	2007-000300	R-CHIP	10Kohm	1	SNA	
R917	2007-000300	R-CHIP	10Kohm	1	SNA	
RY01	3501-001169	RELAY-POWER	12VDC	1	SA	
RY03	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY04	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY05	3501-001238	RELAY-POWER	DC12V	1	SNA	
RY31	3501-001248	RELAY-MINIATURE	12V	1	SNA	
XTAL01	2802-001179	RESONATOR-CERAMIC	4MHz	1	SNA	
XTAL51	2802-001179	RESONATOR-CERAMIC	4MHz	1	SNA	
ZD21	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	
ZD22	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	

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■ OUTDOOR MAIN PCB : DB93-03545G(UQB24J2WC)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
ZD72	0403-000282	DIODE-ZENER	MMBZ5232B	1	SNA	

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■ OUTDOOR EMI PCB : DB93-03546A(UQB18J6WC)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C003	2301-001285	C-FILM,LEAD-PPF	680nF	1	SNA	
C004	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C005	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C007	2301-001285	C-FILM,LEAD-PPF	680nF	1	SNA	
C009	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C010	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
DSA	DB47-00016A	POSISTOR	DSA-332MA	1	SNA	
FT00	DB27-00037A	COIL CHOKE	SSC3120030B	1	SNA	
FT01	DB27-00037A	COIL CHOKE	SSC3120030B	1	SNA	
FUSE	3602-001038	FUSE-CLIP	250V,30A,10mohm	1	SNA	
FUSE_1	3601-001198	FUSE-CARTRIDGE	250V,20A	1	SNA	
L	3712-001139	CONNECTOR-TERMINAL	TAB,MALE	1	SNA	
L/W EARTH	DB39-00514G	CONNECT WIRE-EARTH	GRN YEL	1	SNA	
L/W POWER AC	DB39-00998D	CBF LEAD WIRE-AC POWER	WIRE	1	SNA	
N	3712-001139	CONNECTOR-TERMINAL	TAB,MALE	1	SNA	
PCB	DB41-00433A	PCB SUB-EMI BOARD	PCB-2L	1	SNA	
R002	2001-001150	R-CARBON(S)	470Kohm	1	SNA	
R003	2001-001150	R-CARBON(S)	470Kohm	1	SNA	
VA01	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA02	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA03	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA04	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA05	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	

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■ OUTDOOR EMI PCB : DB93-03546B(UQB24J2WC)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C003	2301-001285	C-FILM,LEAD-PPF	680nF	1	SNA	
C004	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C005	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C007	2301-001285	C-FILM,LEAD-PPF	680nF	1	SNA	
C009	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
C010	2201-000540	C-CERAMIC,DISC	4.7nF	1	SNA	
DSA	DB47-00016A	POSISTOR	DSA-332MA	1	SNA	
FT00	DB27-00037A	COIL CHOKE	SSC3120030B	1	SNA	
FT01	DB27-00037A	COIL CHOKE	SSC3120030B	1	SNA	
FUSE	3602-001038	FUSE-CLIP	250V,30A,10mohm	1	SNA	
FUSE_1	3601-001381	FUSE-CARTRIDGE	250V,30A	1	SNA	
L	3712-001139	CONNECTOR-TERMINAL	TAB,MALE	1	SNA	
L/W EARTH	DB39-00514G	CONNECT WIRE-EARTH	GRN YEL	1	SNA	
L/W POWER AC	DB39-00998D	CBF LEAD WIRE-AC POWER	WIRE	1	SNA	
N	3712-001139	CONNECTOR-TERMINAL	TAB,MALE	1	SNA	
PCB	DB41-00433A	PCB SUB-EMI BOARD	PCB-2L	1	SNA	
R002	2001-001150	R-CARBON(S)	470Kohm	1	SNA	
R003	2001-001150	R-CARBON(S)	470Kohm	1	SNA	
VA01	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA02	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA03	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA04	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	
VA05	1405-000154	VARISTOR	560Vdc,2500A	1	SNA	

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■ OUTDOOR DISPLAY PCB : DB93-03662A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN953	3711-004068	HEADER-BOARD TO CABLE	BOX,5P,ANGLE,WHT	1	SNA	
D901	0401-000005	DIODE-SWITCHING	1N4148	1	SNA	
D902	0401-000005	DIODE-SWITCHING	1N4148	1	SNA	
K1	3404-000165	SWITCH-TACT	12V,50mA	1	SNA	
K2	3404-000165	SWITCH-TACT	12V,50mA	1	SNA	
LED91	0601-000402	LED	ROUND,YEL	1	SNA	
LED92	0601-000552	LED	ROUND,GRN	1	SNA	
LED93	0601-001373	LED	ROUND,RED	1	SNA	
PCB	DB41-00447A	PCB DISPLAY	PCB-1L	1	SNA	

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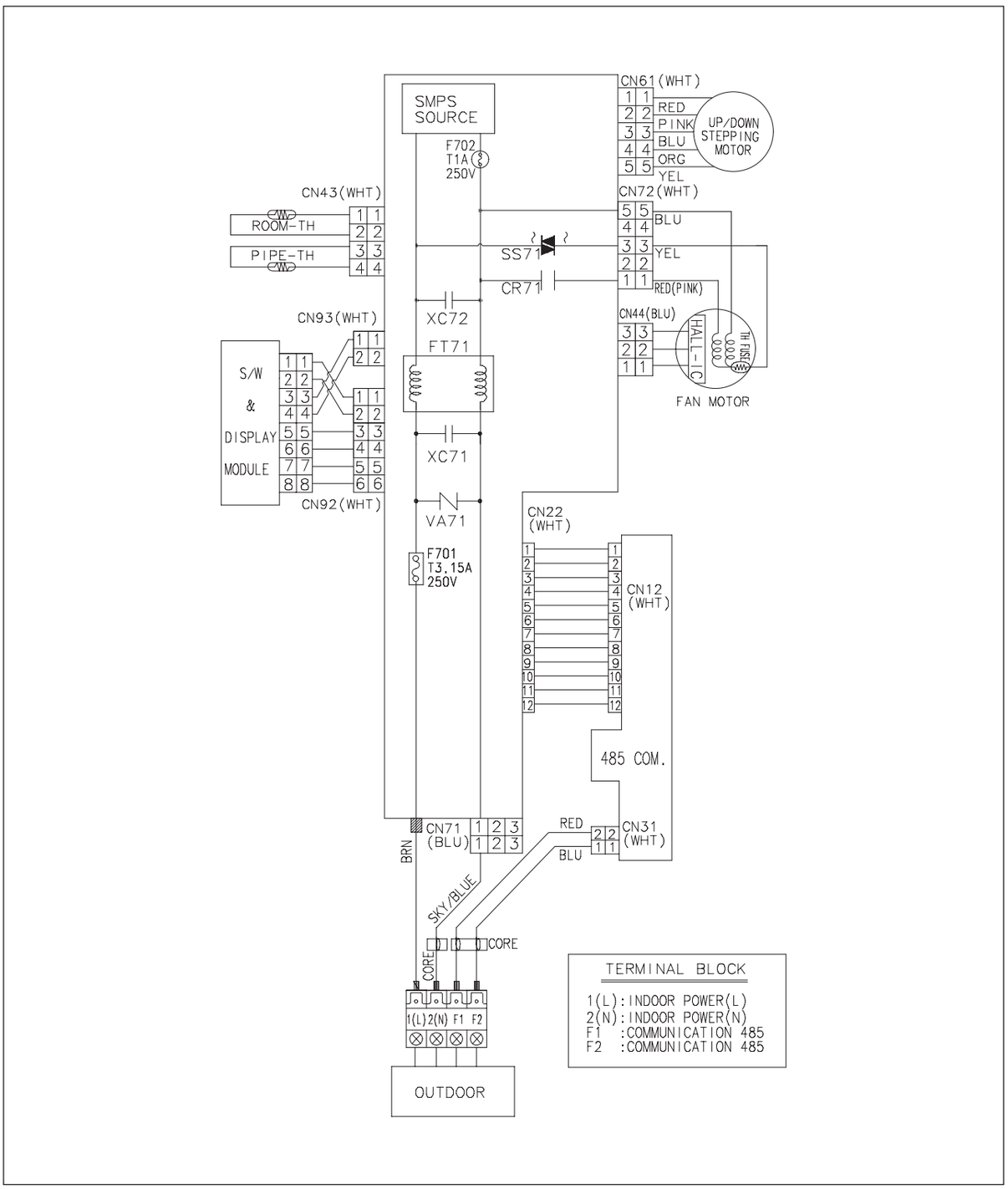
7. Wiring Diagram

7-1 Indoor Unit



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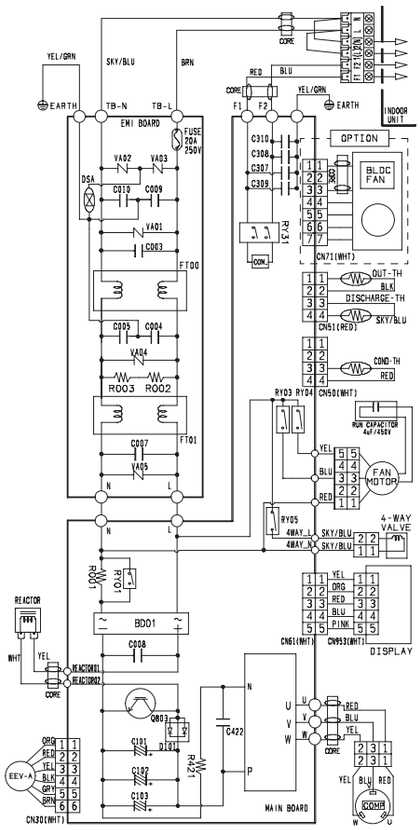
■ UQB18J6WC



LED PATTERN YEL	LED PATTERN GRN	LED PATTERN RED	DESCRIPTION
○	○	○	Power Off / VDD NG
○	○	◎	IPM Over Current(O.C)
○	○	●	Abnormal Serial communication
○	●	●	(Display Board:Indoor<->Outdoor)
○	◎	●	Normal Operation
○	◎	○	Comp Starting error
○	●	○	Comp Lock error
○	●	◎	DC-Link voltage under/over error
◎	○	◎	Outdoor temp sensor error(Dual/Single)
◎	○	●	Discharge over temperature(Dual/Single)
◎	◎	○	Discharge temp sensor error(Dual/Single)
◎	◎	●	current sensor error
◎	●	◎	Comp Vlimit error
◎	●	◎	Coil temp sensor error(Dual/Single)
◎	●	●	1min. Time out Comm. (Display Board:Onboard:Indoor<->Outdoor)
●	○	○	Fan error
●	○		OTP error
●	○	●	Comp rotation error
●	◎	○	Operation condition secession(Dual only)
●	◎	◎	DC-Link voltage sensor error
●	◎	●	I-Trip error / PFC Over current
●	●	○	GAS Leak error(Dual/Single)
●	●	◎	AC Line Zero Cross Signal out
●	●	●	Power ON reset(1sec)
◎	○	○	capacity miss match
○	◎	◎	Test Operation Cooling Mode
◎	◎	◎	Test Operation Heating Mode

● LED ON
○ LED OFF
◎ LED BLINKING

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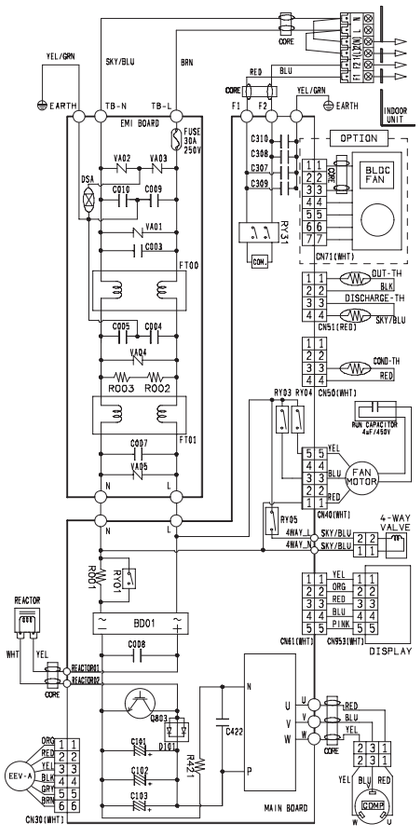
■ UQB24J2WC



LED PATTERN			DESCRIPTION
YEL	GRN	RED	
○	○	○	Power Off / VDD NG
○	○	◎	IPM Over Current(O,C)
○	○	●	Abnormal Serial communication
○	●	●	(Display Board:Indoor<->Outdoor)
○	◎	●	Normal Operation
○	◎	○	Comp Starting error
○	●	○	Comp Lock error
○	●	◎	DC-Link voltage under/over error
◎	○	◎	Outdoor temp sensor error(Dual/Single)
◎	○	●	Discharge over temperature(Dual/Single)
◎	◎	○	Discharge temp sensor error(Dual/Single)
◎	◎	●	current sensor error
◎	●	◎	Comp Vlimit error
◎	●	◎	Coil temp sensor error(Dual/Single)
◎	●	●	1min. Time out Comm. (Display Board:Onboard:Indoor<->Outdoor)
●	○	○	Fan error
●	○		OTP error
●	○	●	Comp rotation error
●	◎	○	Operation condition secession(Dual only)
●	◎	◎	DC-Link voltage sensor error
●	◎	●	I-Trip error / PFC Over current
●	●	○	GAS Leak error(Dual/Single)
●	●	◎	AC Line Zero Cross Signal out
●	●	●	Power ON reset(1sec)
◎	○	○	capacity miss match
○	◎	◎	Test Operation Cooling Mode
◎	◎	◎	Test Operation Heating Mode

● LED ON
○ LED OFF
◎ LED BLINKING

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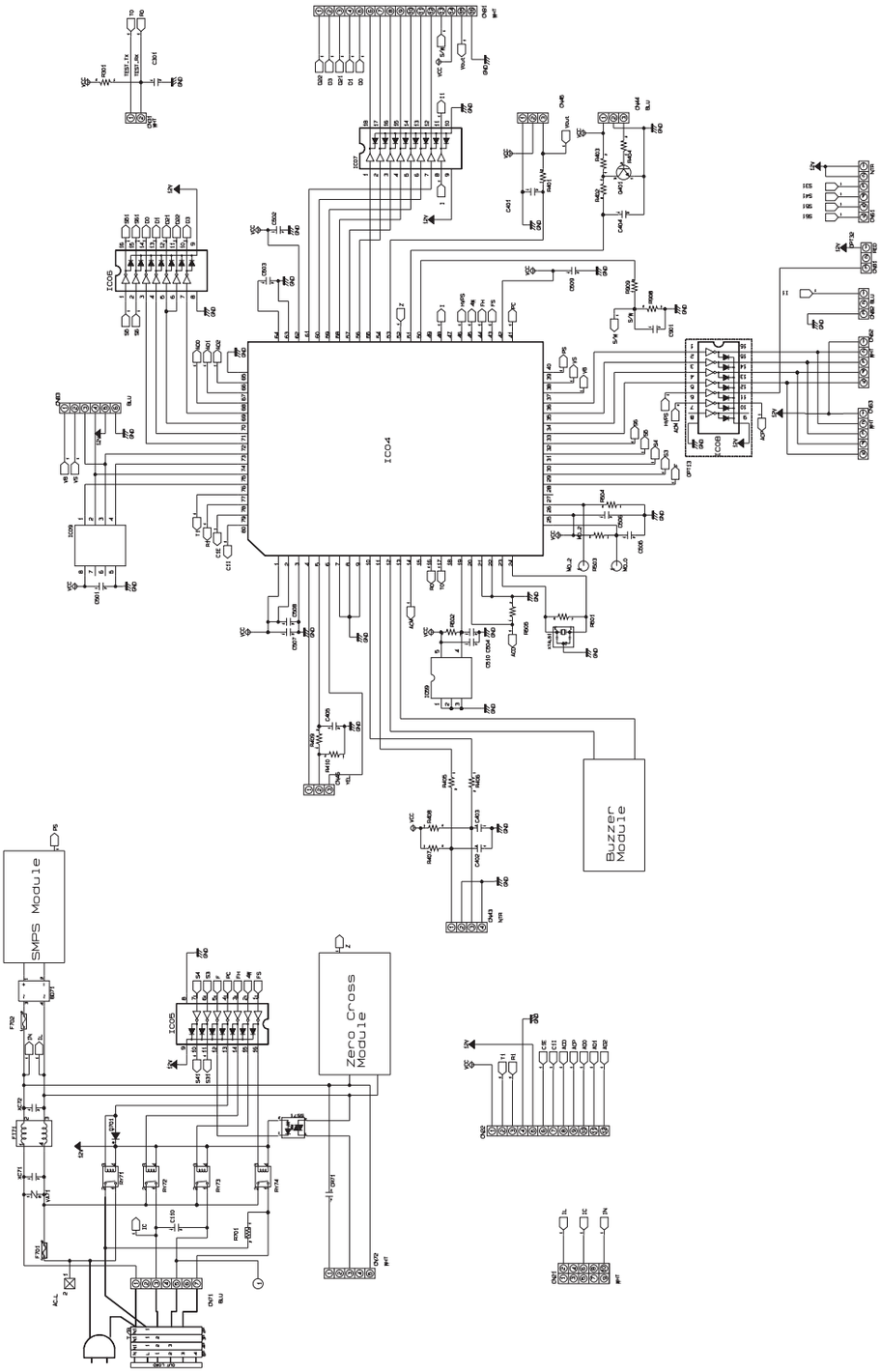
8. Schematic Diagram

8-1 Indoor Unit



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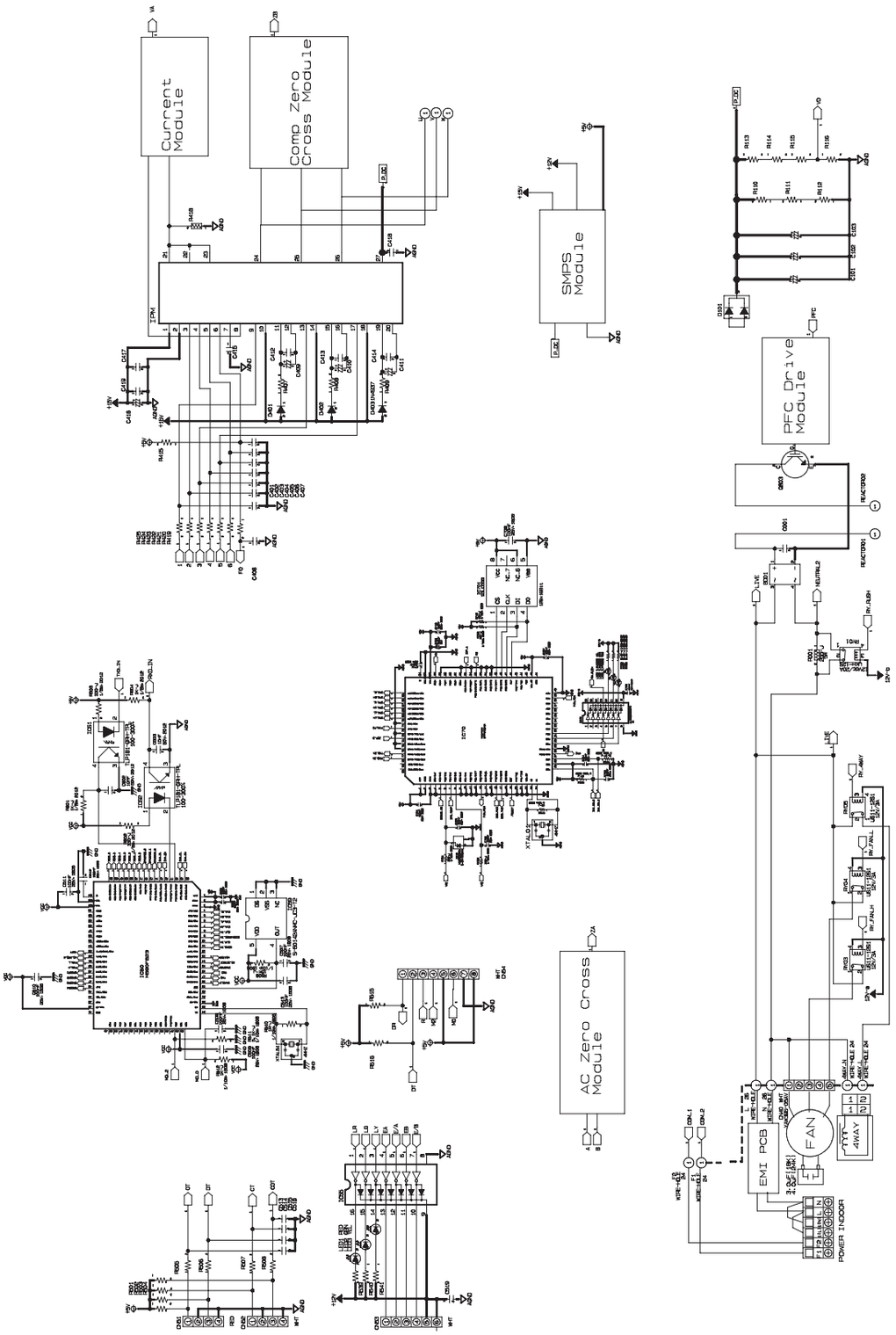
8-2 Outdoor Unit



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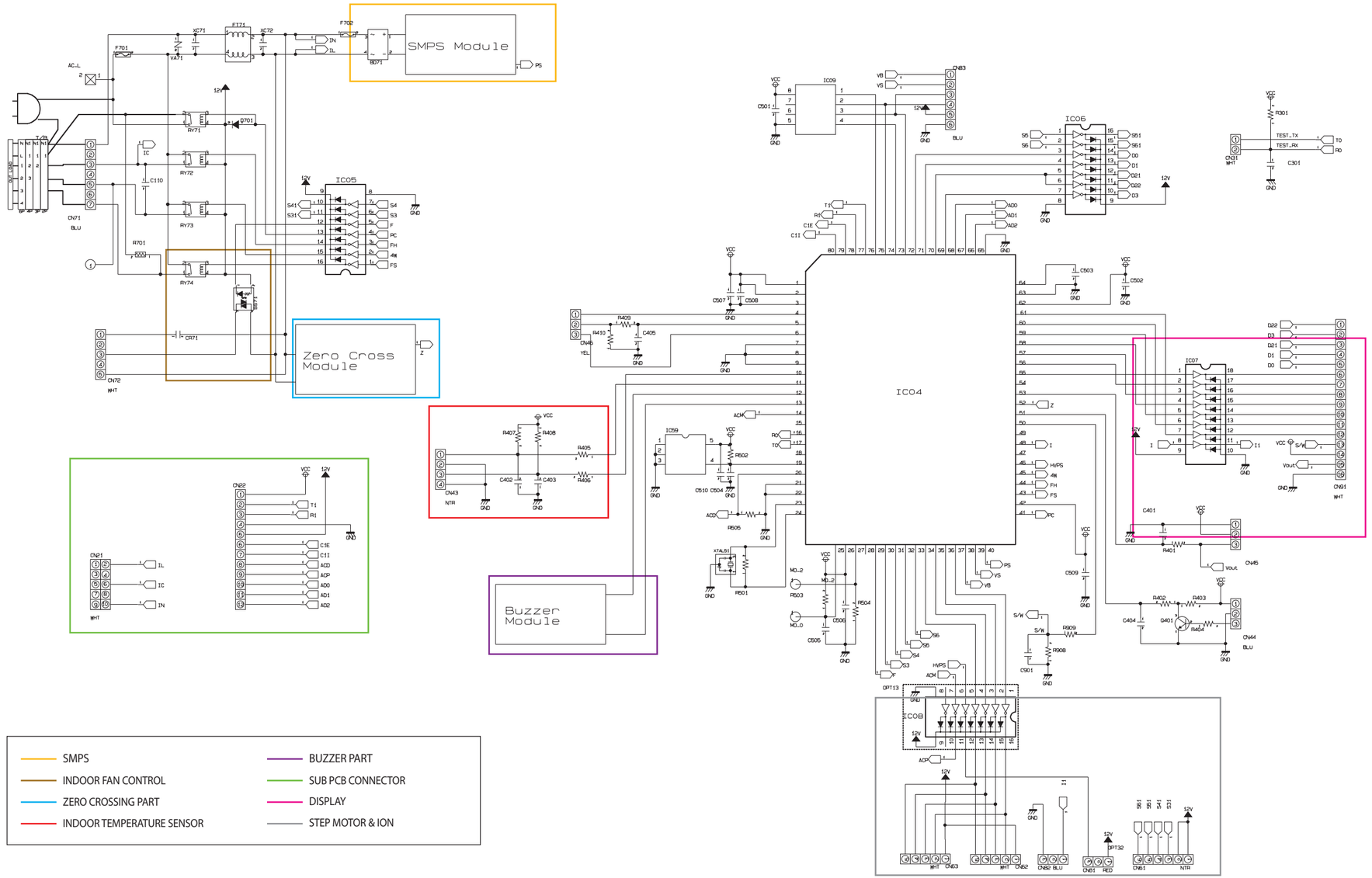
9. Circuit Descriptions

9-1 PCB Circuit Descriptions

9-1-1 Indoor Unit



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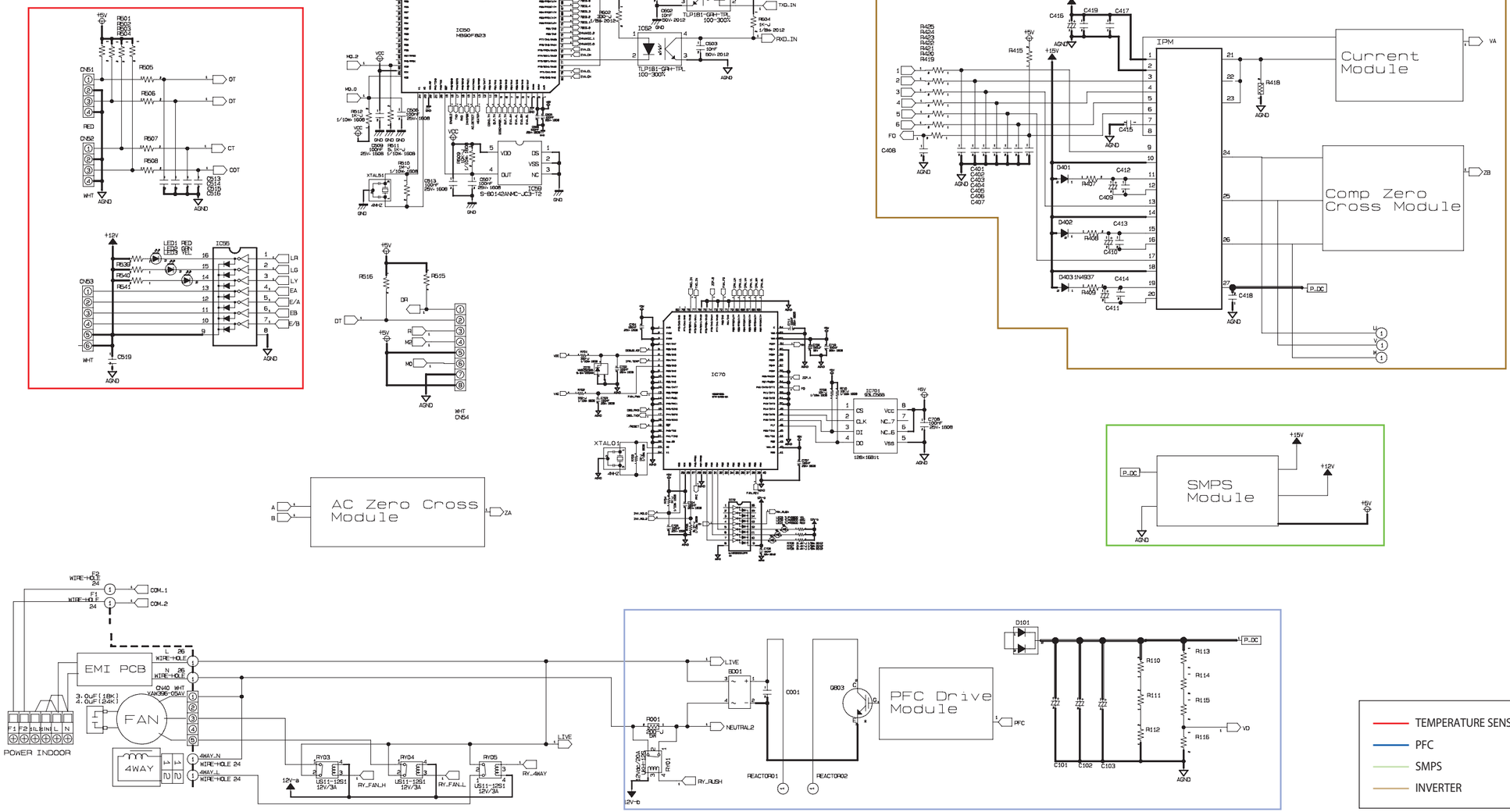
Circuit Descriptions

9-1-2 Outdoor Unit



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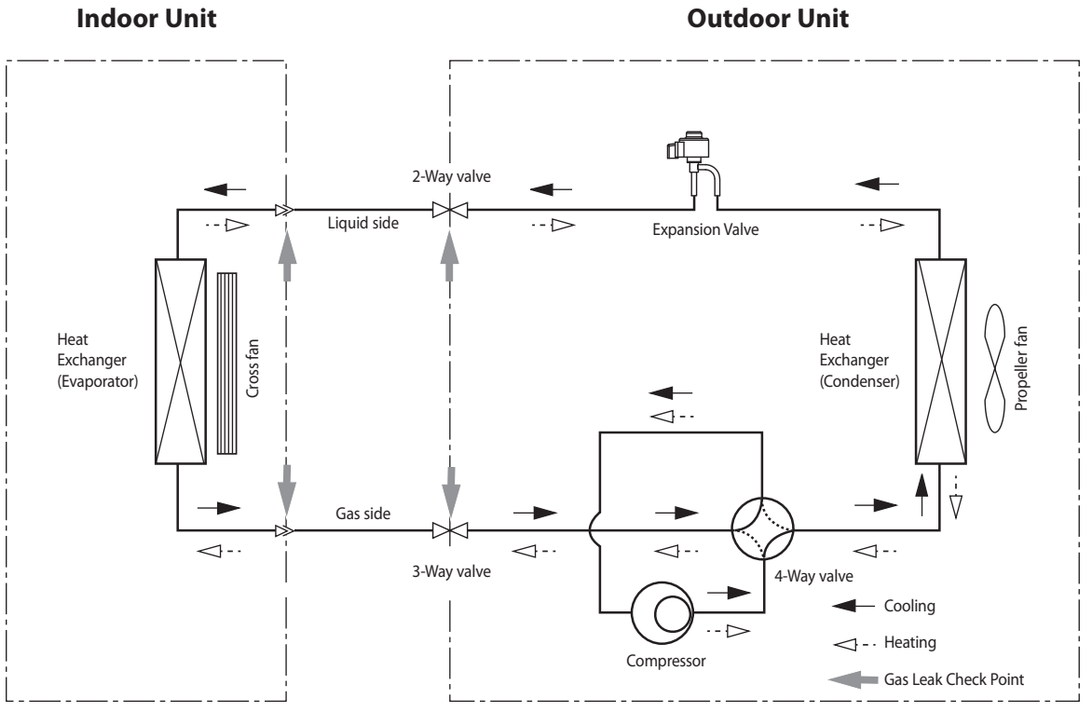
9-2 Refrigerating Cycle Diagram



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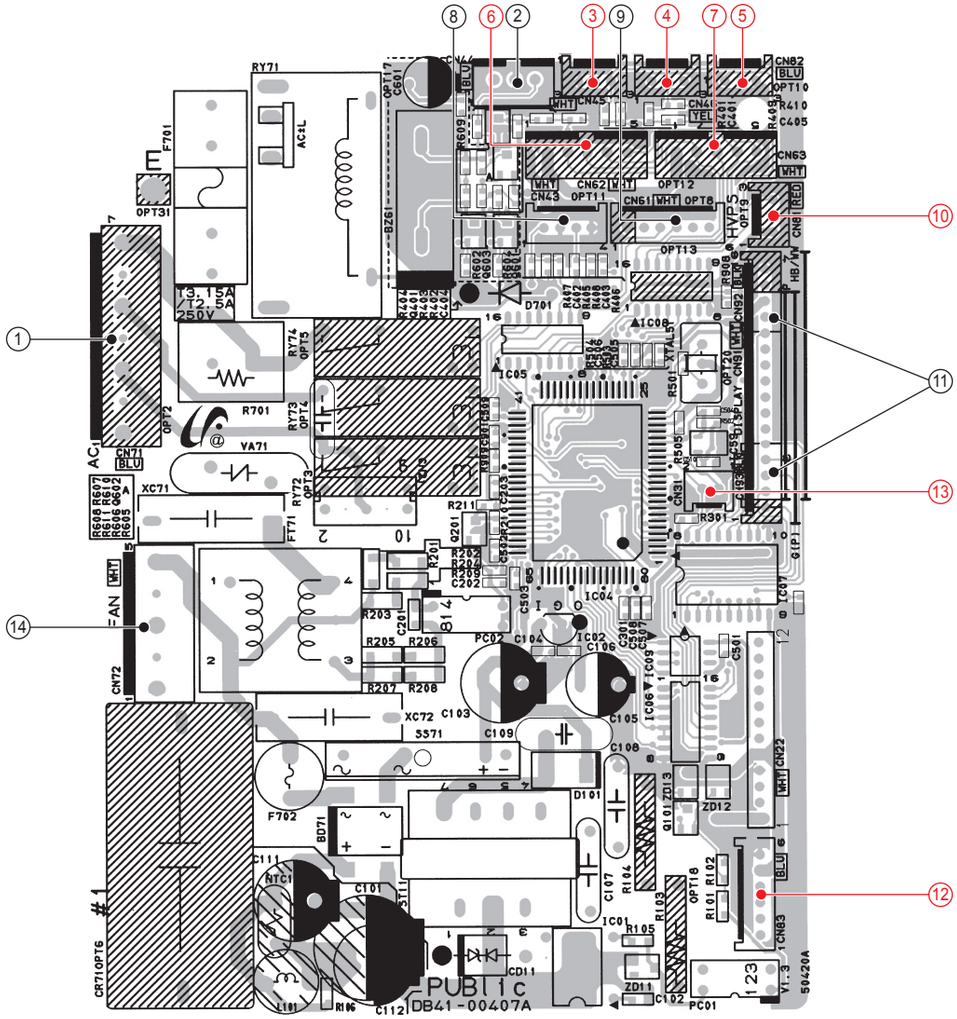
10. PCB Diagram

10-1 Indoor PCB

⚠ The red number connecter is not used.



①	Power	⑧	Temperature Sensor
②	Motor RPM Feedback	⑨	BLADE-H Step Motor
③	Remocon Module	⑩	HVPS(High voltage Generator)
④	Humidity Sensor	⑪	DISPLAY PCB Connection
⑤	Anions	⑫	Melody PCB Connection
⑥	Auto grill 1	⑬	Test Board Connection
⑦	Auto grill 2	⑭	Indoor Fan Motor

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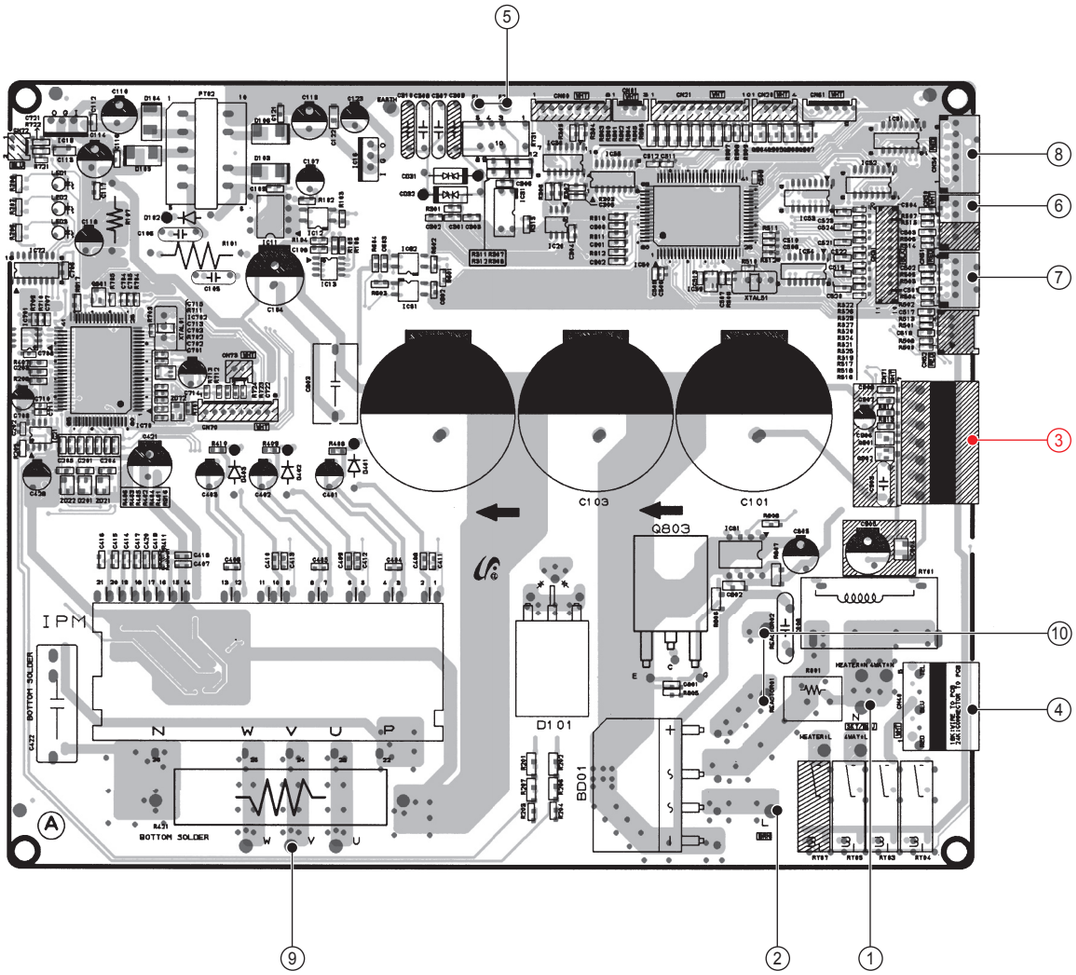
10-2 Outdoor PCB



①	Power N	⑥	COND/OLP Temperature Sensor
②	Power L	⑦	DIS/OUT Temperature Sensor
③	BLDC FAN	⑧	EEV Connector
④	AC FAN	⑨	Comp. Connector Wire
⑤	Communication 485	⑩	Reactor Connector Wire

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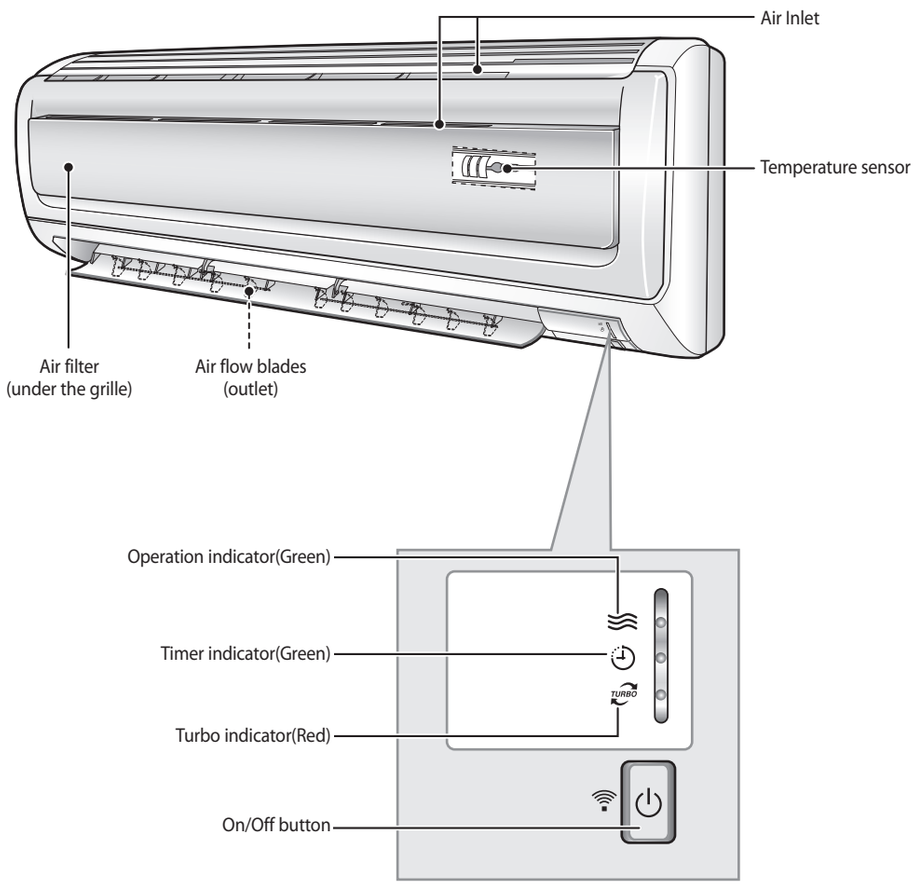
11. Operating Instructions

11-1 Name of Each Part

11-1-1 Indoor Unit

The design and shape can be changed according to the model.



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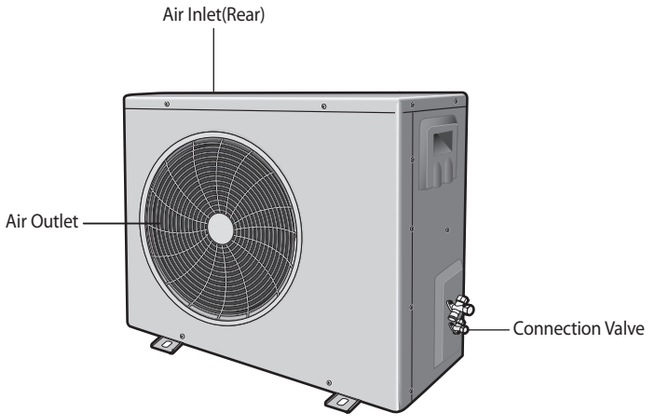
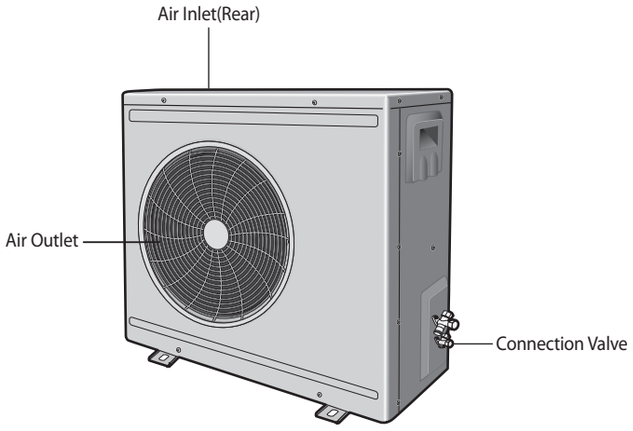
11-1-2 Outdoor Unit

■ UQB18J6WC



■ UQB24J2WC



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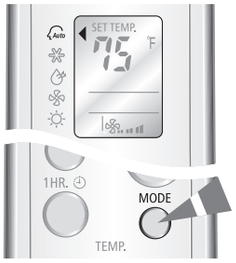
11-2 Main Function

11-2-1 Basic Function

Mode	Explanation	Remark
Auto Mode	Press the MODE button on the remote control until Auto is displayed.	
Cool Mode	Press the MODE button on the remote control until ❄ is displayed.	
	Press the FAN SPEED button to select the fan speed until the required setting is displayed. Automatic (rotated : → →) Low Medium High Turbo (Maximum)	
Heat Mode	Press the MODE button on the remote control until ☼ is displayed.	
	Press the FAN SPEED button to select the fan speed until the required setting is displayed. Automatic (rotated : → →) Low Medium High	

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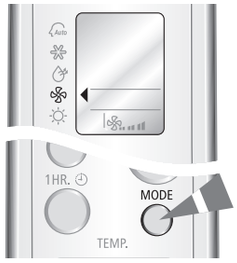
Basic Function(cont.)

Mode	Explanation	Remark
Dry Mode	Press the MODE button on the remote control until is displayed.	
Fan Mode	Press the MODE button on the remote control until is displayed.	

11-2-2 Applied Function

Mode	Explanation	Remark
Turbo Function	Press the TURBO button. • After 30 minutes, the air conditioner is reset automatically to the previous setting. • You can select the Turbo function in the Auto, Cool and Heat mode. If you select this function in the Dry or Fan mode, the mode changes to the Auto mode.	
Energy Saving Function	Press the ENERGY SAVING button.	

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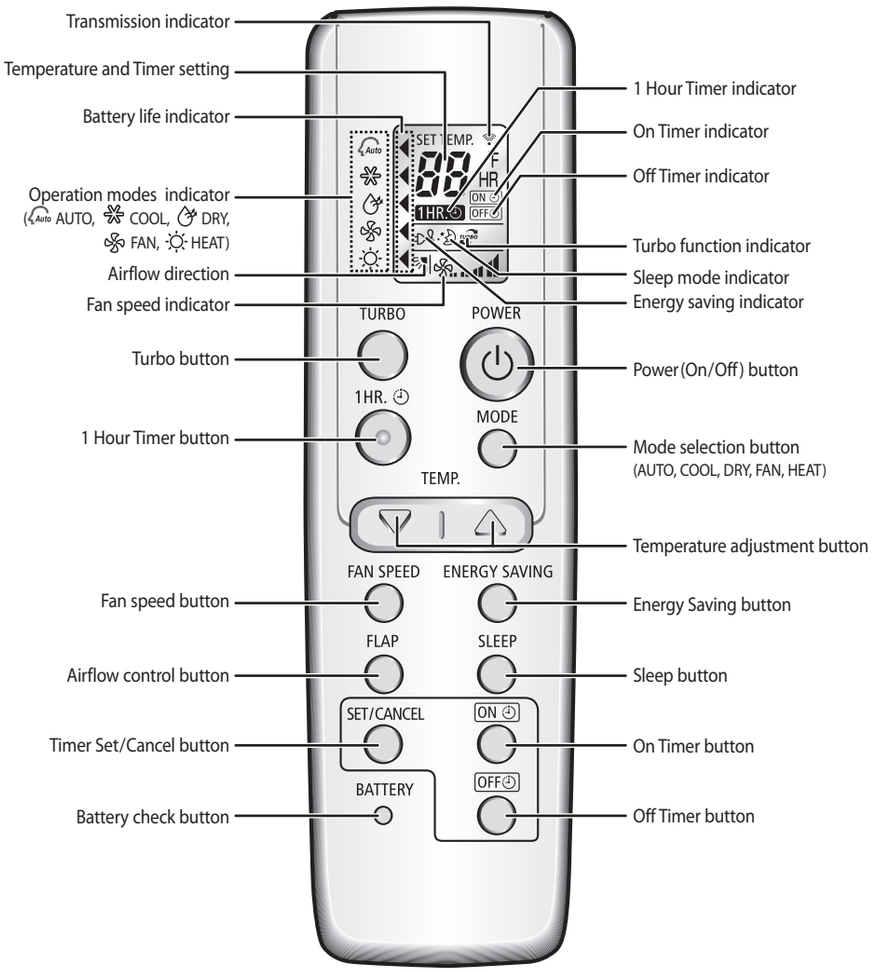
11-3 Wireless Remote Control-Buttons and Display



Note : • Each mode indicator shows the current setting and the battery life.
• You can check the battery life by pressing the BATTERY button.
• The number of the battery life indicator means the remaining battery life.
Replace the batteries when only one battery life indicator remains.

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12. Troubleshooting

12-1 Items to be checked first

1. The input voltage should be rating voltage ±10% range.
   The air conditioner may not operate properly if the voltage is out of this range.

2. Is the link cable linking the indoor unit and the outdoor unit linked properly?
   The indoor unit and the outdoor unit shall be linked by 5 cables.
   Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables.
   Otherwise the air conditioner may not operate properly.

3. When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the air conditioner.

No	Operation of air conditioner	Explanation
1	The OPERATION indication LED(BLUE) blinks when a power plug of the indoor unit is plugged in for the first time.	It indicates power is on. The LED stops blinking if the operation ON/OFF button on the remote control unit is pushed.
2	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. **[In case of heat pump model]** In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew.
3	Fan speed setting is not allowed in DRY( ) mode.	The speed of the indoor fan is set to LL in DRY mode. Fan speed is selected automatically in AUTO mode.
4	Compressor stops operation intermittently in DRY( ) mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
5	Timer LED(ORANGE) of the indoor unit lights up and the air conditioner does not operate.	Timer is being activated and the unit is in ready mode. The unit operates normally if the timer operation is cancelled.
6	The compressor stops intermittently in a COOL mode or DRY mode, and fan speed of the indoor unit decreases.	The compressor stops intermittently or the fan speed of the indoor unit decreases to prevent inside/outside air frozen depending on the inside/outside air temperature.
7	**[In case of heat pump model]** Compressor of the outdoor unit is operating although it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continues operation for up to 9 minutes(maximum) until the deice is completed.
8	**[In case of heat pump model]** The compressor and indoor fan stop intermittently in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
9	**[In case of heat pump model]** Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation

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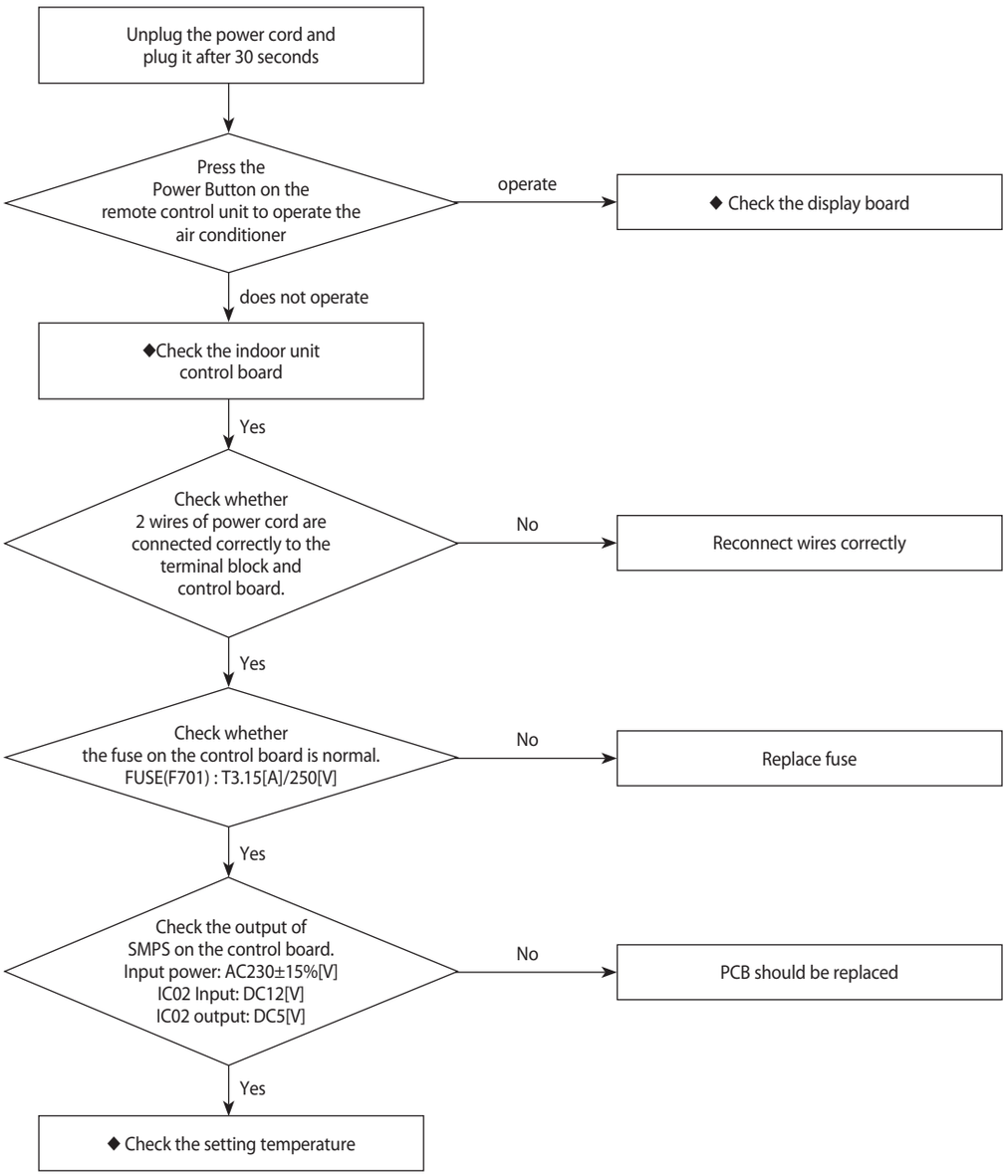
12-2 Fault Diagnosis by Symptom

12-2-1 No Power (completely dead)-Initial diagnosis

1. Checklist :
   1) Is input voltage normal?
   2) Is AC power linked correctly?
   3) Is input voltage of DC regulator IC KA7805 (IC02) normal? (11VDC-12.5VDC)
   4) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)

2. Troubleshooting procedure


Unplug the power cord and plug it after 30 seconds
Press the Power Button on the remote control unit to operate the air conditioner
operate
◆ Check the display board
does not operate
◆Check the indoor unit control board
Yes
Check whether 2 wires of power cord are connected correctly to the terminal block and control board.
No
Reconnect wires correctly
Yes
Check whether the fuse on the control board is normal. FUSE(F701) : T3.15[A]/250[V]
No
Replace fuse
Yes
Check the output of SMPS on the control board. Input power: AC230±15%[V] IC02 Input: DC12[V] IC02 output: DC5[V]
No
PCB should be replaced
Yes
◆ Check the setting temperature

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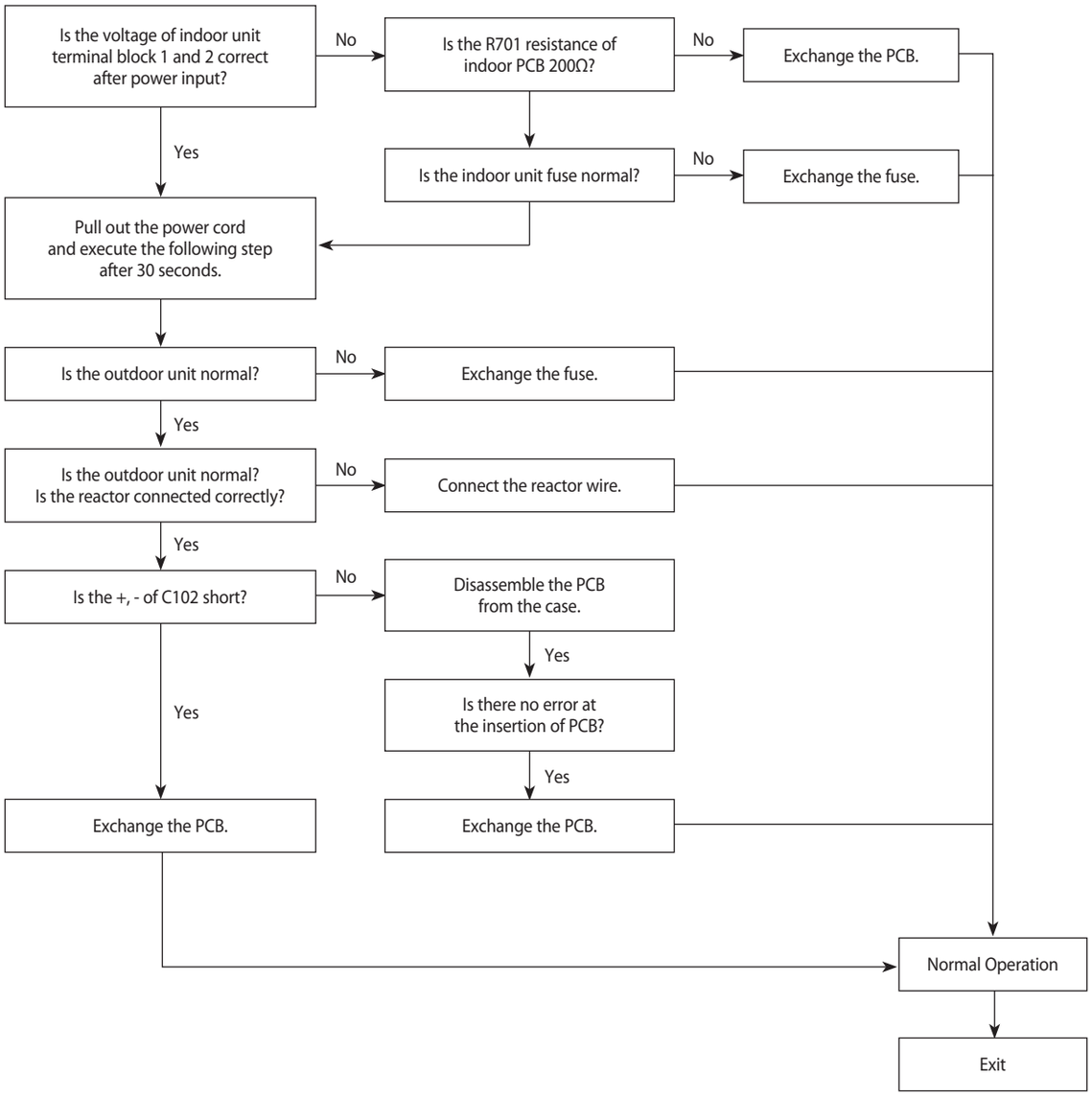
12-2-2 The Outdoor unit power supply error

1. Checklist :
   1) Are the input power voltage and the power connection correct?
   2) Is there no Fuse short in the indoor unit and outdoor unit?
   3) Is the cable connected correctly between the indoor unit and outdoor unit in order.
   4) Is the wire connected correctly to the terminal block of the indoor unit and outdoor unit?

2. Troubleshooting procedure



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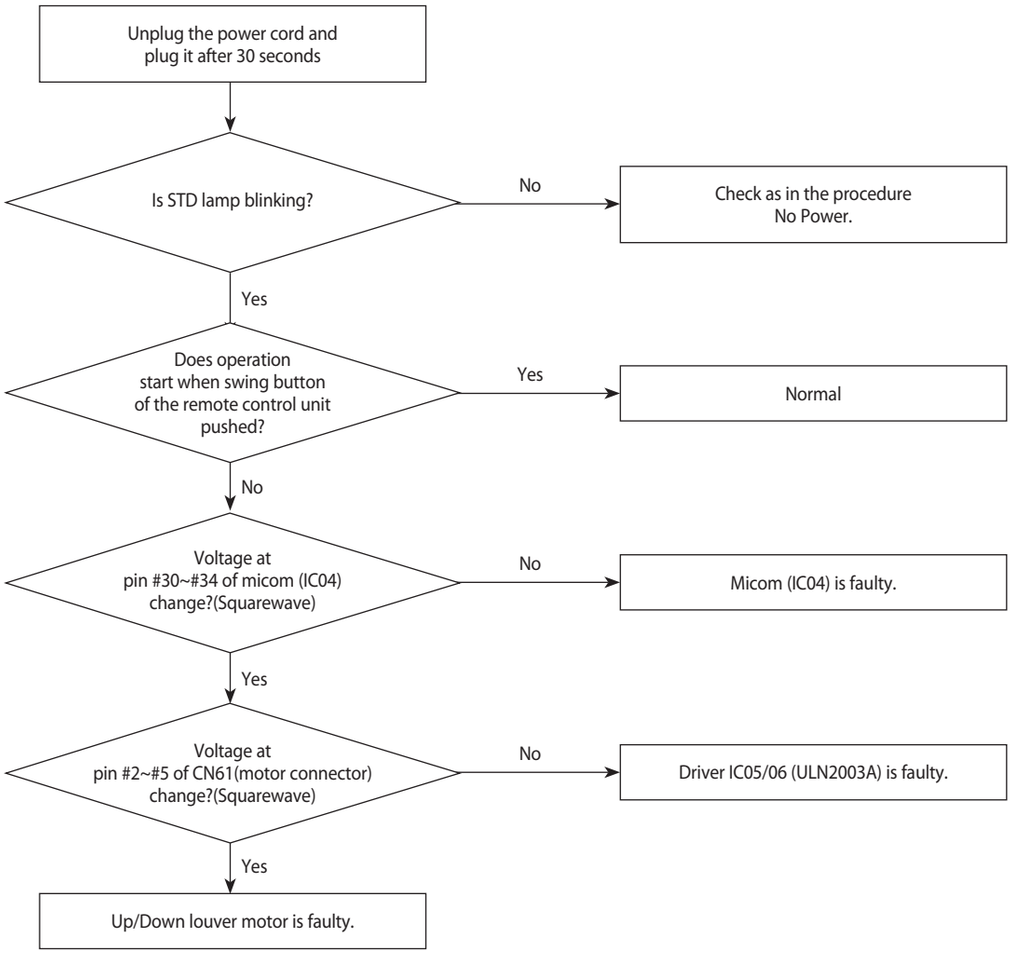
12-2-3 When the Up/Down Louver Motor Does Not Operate. (Initial Diagnosis)

1. Checklist :
   1) Is input voltage normal?
   2) Is the Up/Down louver motor properly connected with the connector (CN61)?

2. Troubleshooting procedure


Unplug the power cord and plug it after 30 seconds
Is STD lamp blinking?
No
Check as in the procedure No Power.
Yes
Does operation start when swing button of the remote control unit pushed?
Yes
Normal
No
Voltage at pin #30~#34 of micom (IC04) change?(Squarewave)
No
Micom (IC04) is faulty.
Yes
Voltage at pin #2~#5 of CN61(motor connector) change?(Squarewave)
No
Driver IC05/06 (ULN2003A) is faulty.
Yes
Up/Down louver motor is faulty.

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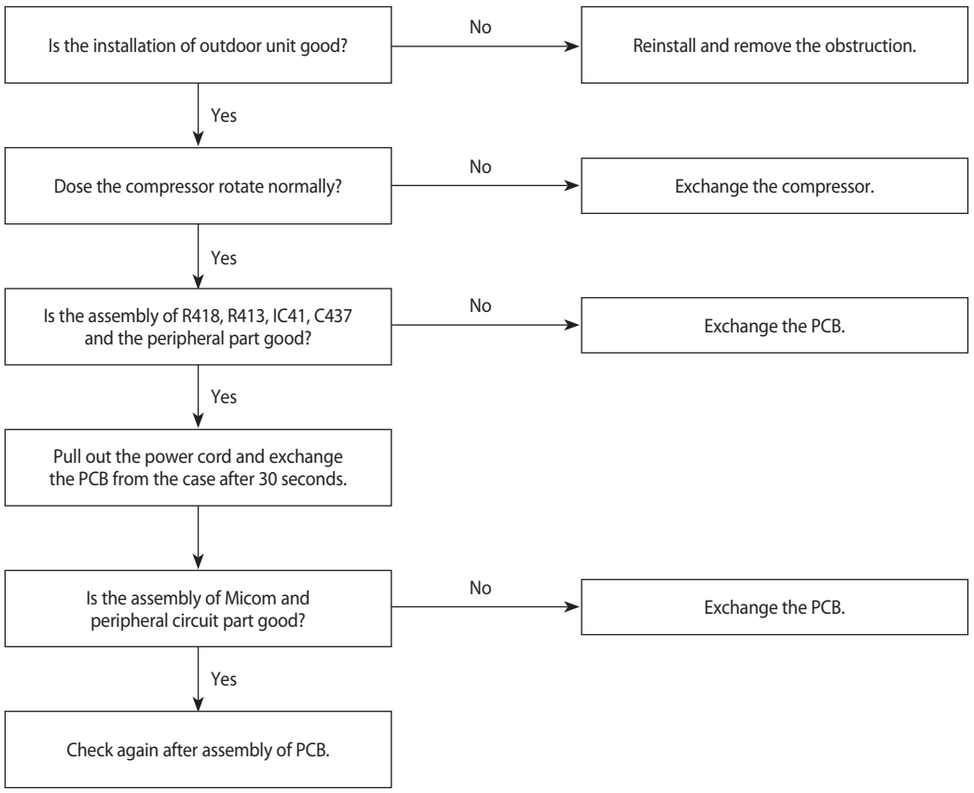
12-2-4 Total current Trip error

1. Checklist :
   1) Is the input power voltage proper?
   2) Is the refrigerant charged properly?
   3) Does the compressor rotate normally? (Reverse rotation, Locking etc.)
   4) Dose the outdoor fan operate normally? (Fan propeller loss, Motor error etc.)
   5) Is the installation condition of outdoor unit good? (Piping, Space etc.)
   6) Is there no ventilation obstruction at the surrounding of outdoor? (Outdoor unit cover, Fan front obstruction etc.)

2. Troubleshooting procedure


Is the installation of outdoor unit good?
No
Reinstall and remove the obstruction.
Yes
Dose the compressor rotate normally?
No
Exchange the compressor.
Yes
Is the assembly of R418, R413, IC41, C437 and the peripheral part good?
No
Exchange the PCB.
Yes
Pull out the power cord and exchange the PCB from the case after 30 seconds.
Is the assembly of Micom and peripheral circuit part good?
No
Exchange the PCB.
Yes
Check again after assembly of PCB.

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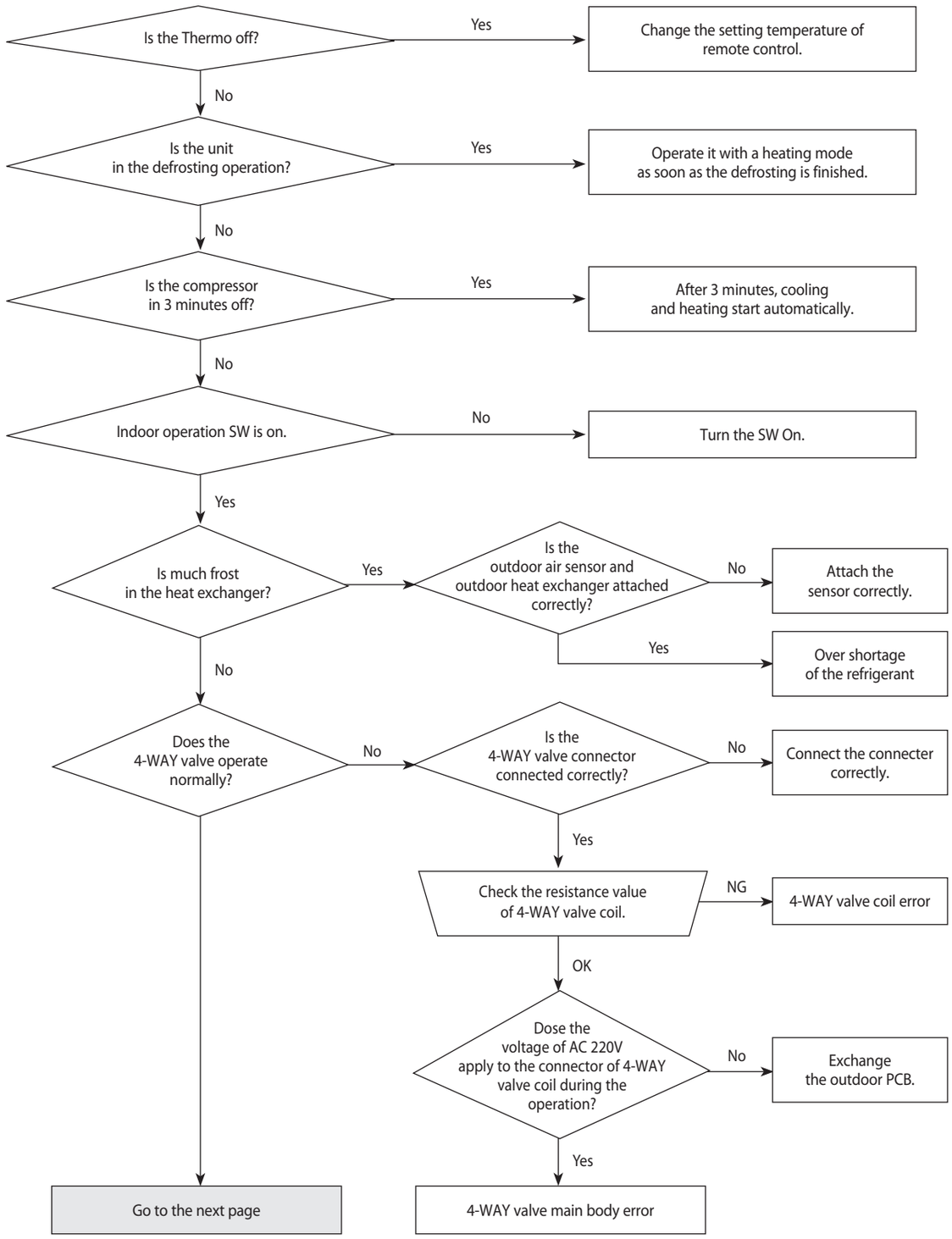
12-2-5 In case of heating at the cooling mode or cooling at the heating mode

1. Troubleshooting procedure


Is the Thermo off?
Yes
Change the setting temperature of remote control.
No
Is the unit in the defrosting operation?
Yes
Operate it with a heating mode as soon as the defrosting is finished.
No
Is the compressor in 3 minutes off?
Yes
After 3 minutes, cooling and heating start automatically.
No
Indoor operation SW is on.
No
Turn the SW On.
Yes
Is much frost in the heat exchanger?
Yes
Is the outdoor air sensor and outdoor heat exchanger attached correctly?
No
Attach the sensor correctly.
Yes
Over shortage of the refrigerant
No
Does the 4-WAY valve operate normally?
No
Is the 4-WAY valve connector connected correctly?
No
Connect the connecter correctly.
Yes
Check the resistance value of 4-WAY valve coil.
NG
4-WAY valve coil error
OK
Dose the voltage of AC 220V apply to the connector of 4-WAY valve coil during the operation?
No
Exchange the outdoor PCB.
Yes
Go to the next page
4-WAY valve main body error

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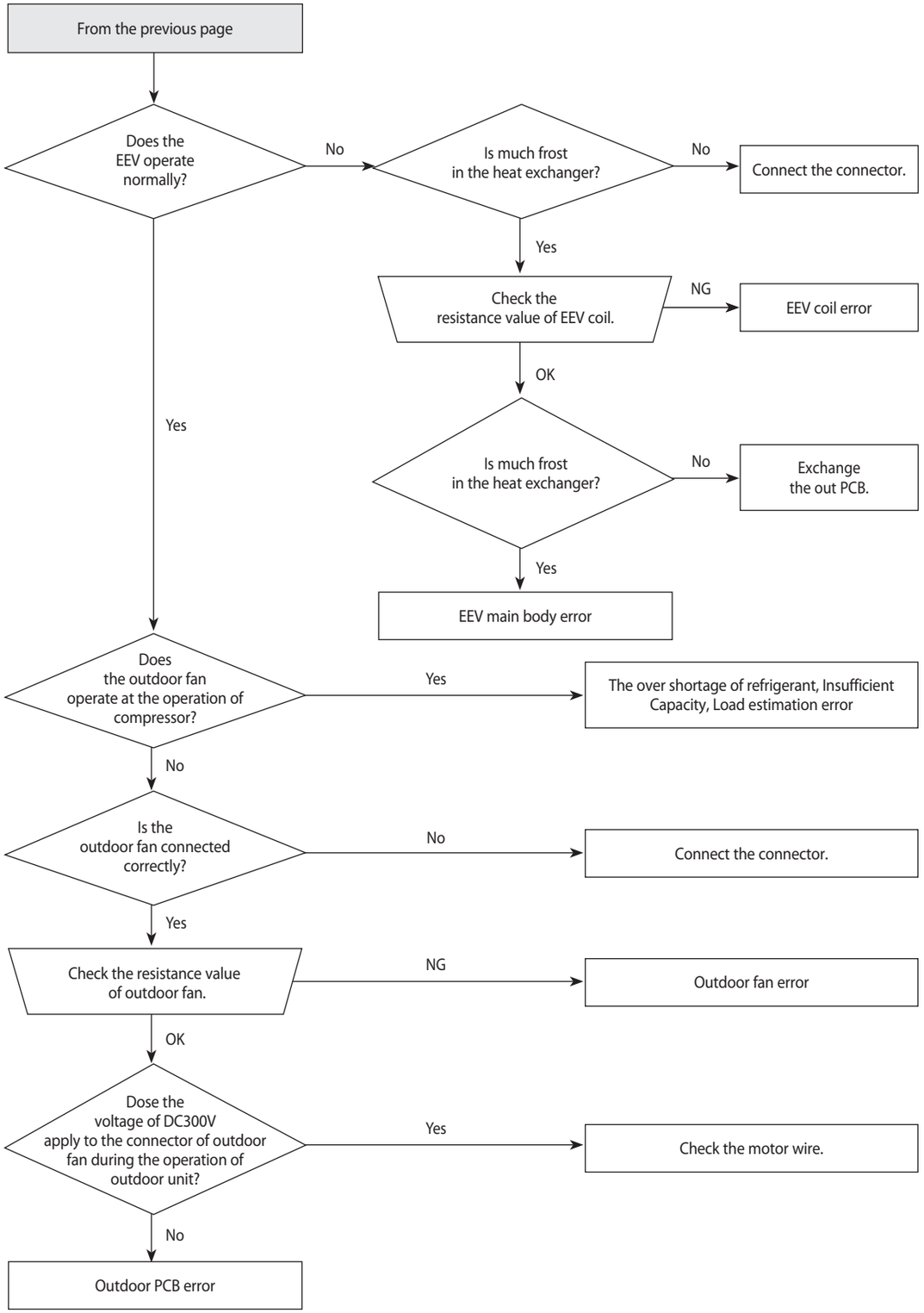
In case of heating at the cooling mode or cooling at the heating mode(cont.)



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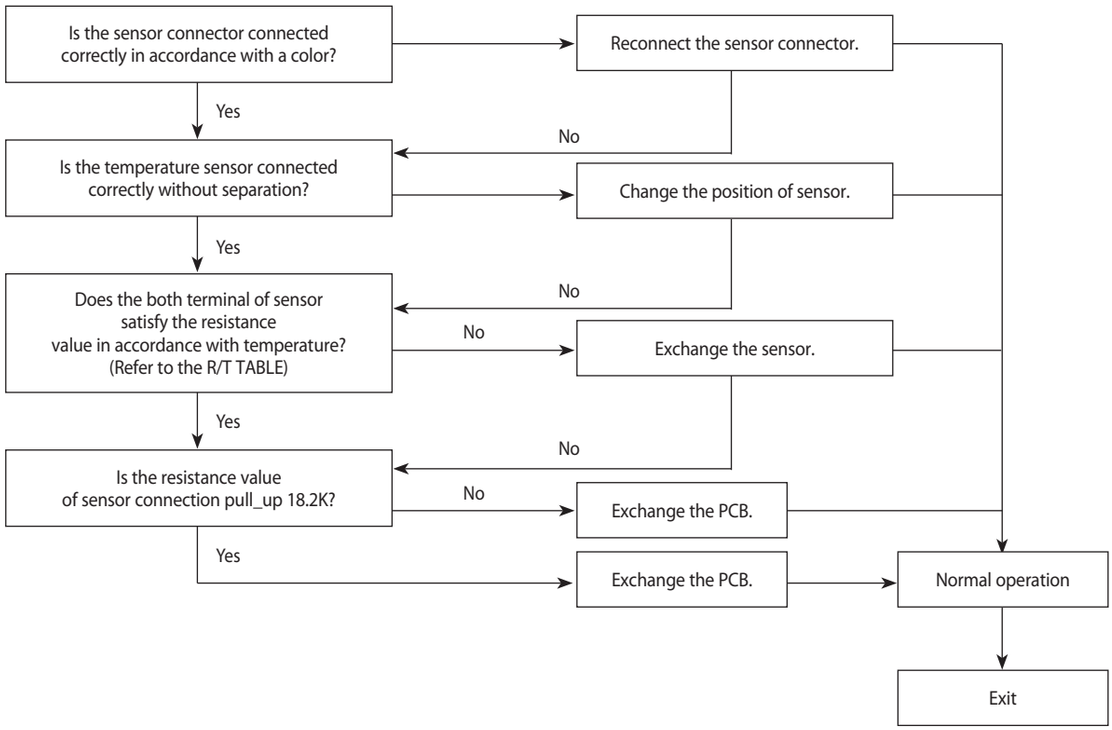
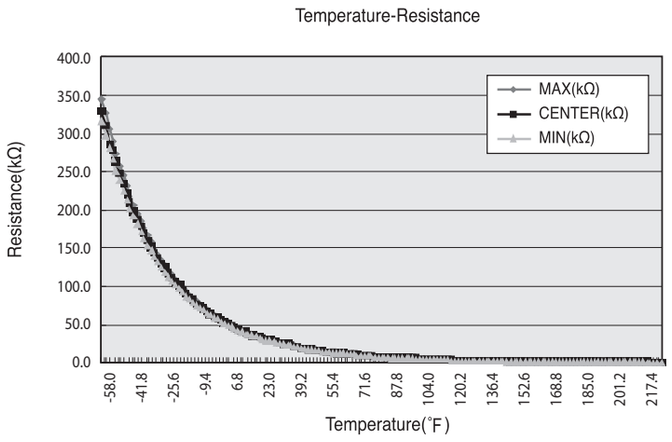
12-2-6 Outdoor temperature sensor error

1. Checklist :
   1) Is the sensor connector connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure



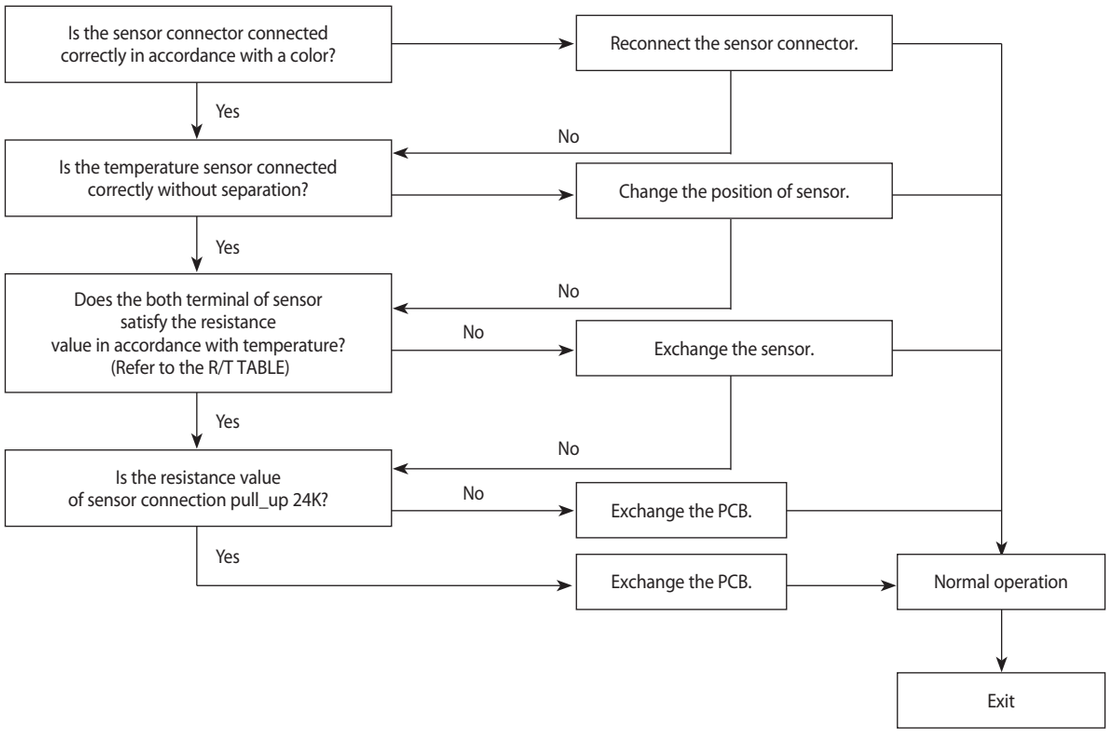


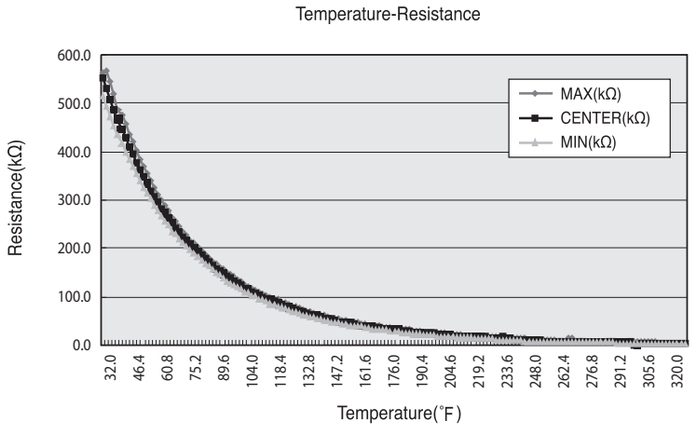
26005A(2)_1.indd 13 2006-04-14 ｿﾀﾈﾄ 5:05:12

12-2-7 Discharge temperature sensor error

1. Checklist :
   1) Is the sensor connector connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure





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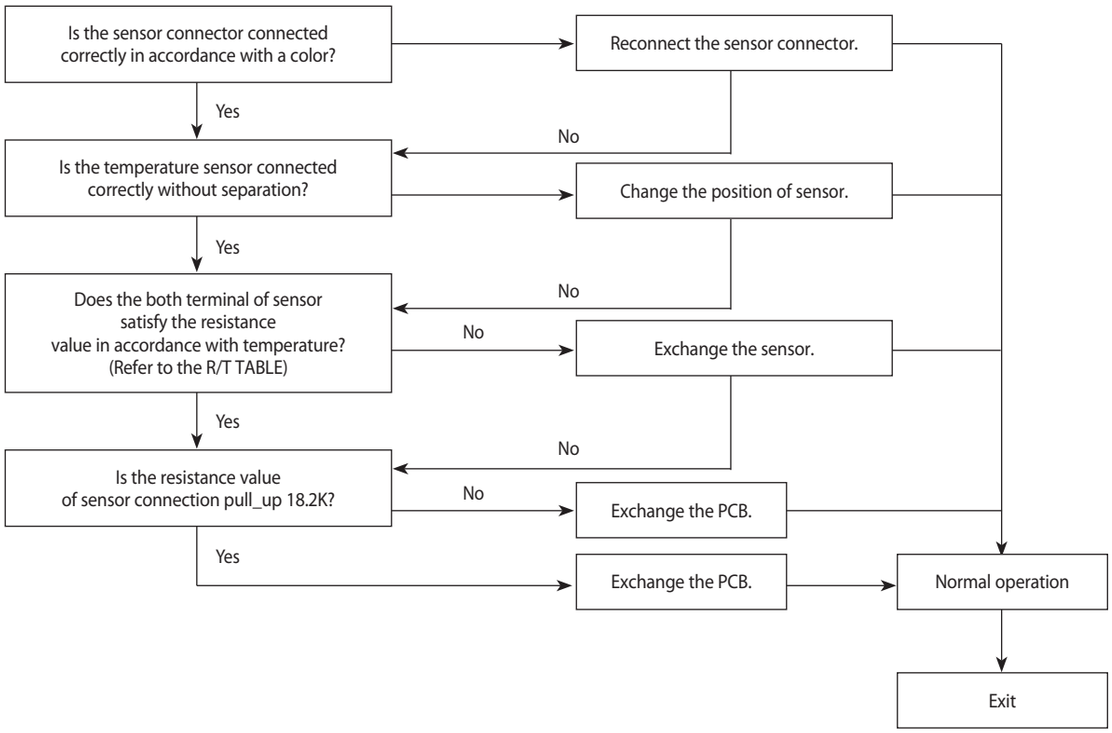
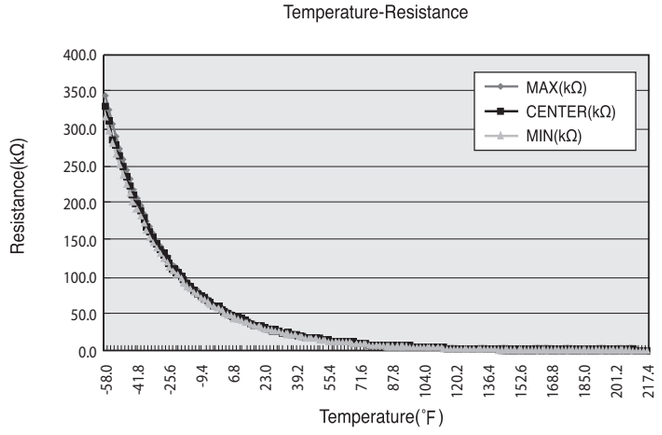
12-2-8 Coil temperature sensor error

1. Checklist :
   1) Is the sensor connector connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure





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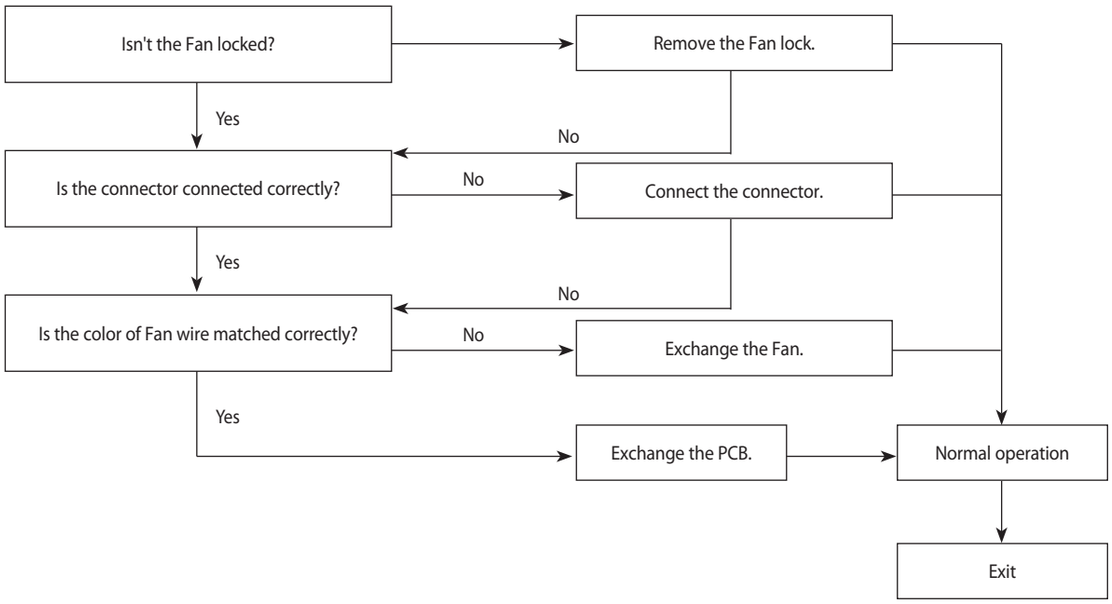
12-2-9 Fan error

1. Checklist :
   1) Isn't the fan locked?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure



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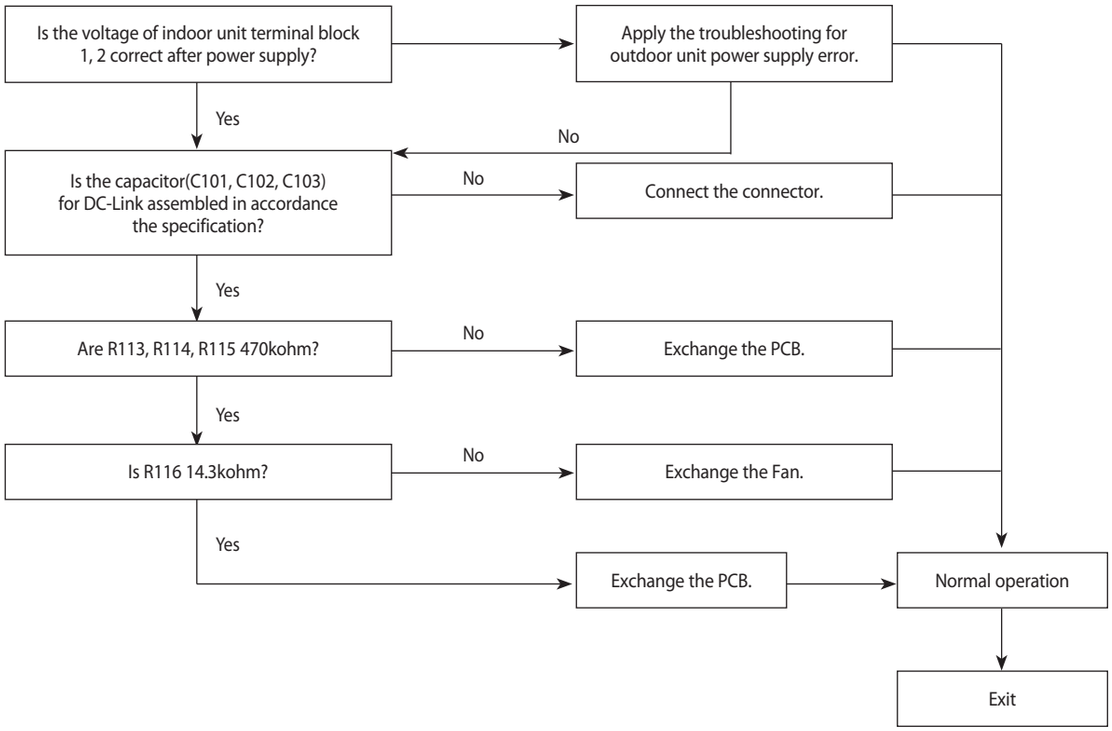
12-2-10 DC-Link voltage sensor error

1. Checklist :
   1) Is the voltage of indoor unit terminal block 1, 2 correct after power supply?
   2) Is the capacitor(C101, C102, C103) for DC-Link assembled in accordance the specification?
   3) Are R112, R113, R114 470 Kohm?
   4) Is R115 14.3Kohm?

2. Troubleshooting procedure



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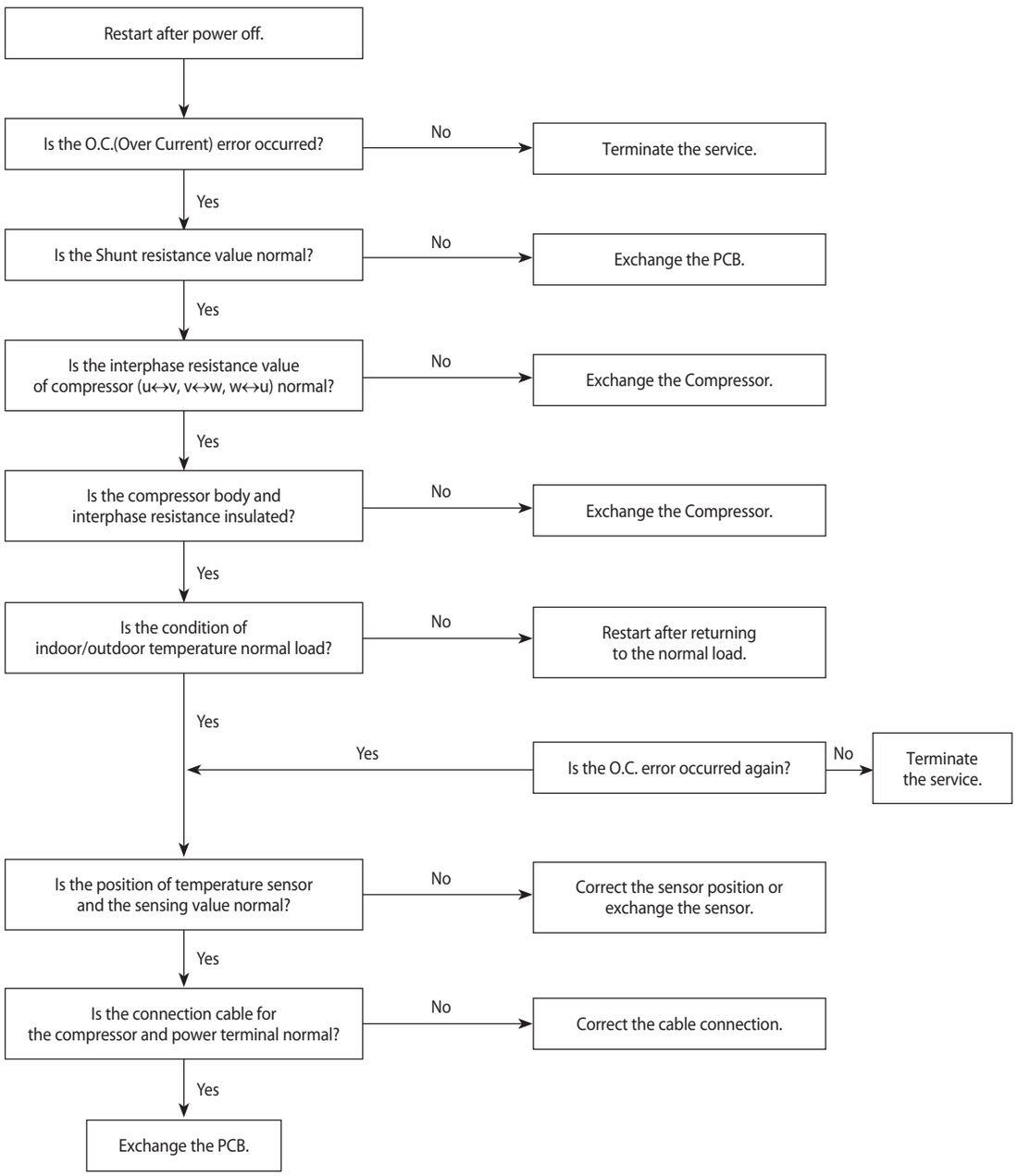
12-2-11 O.C.(Over Current) error

1. Checklist :
   1) Is the Shunt resistance value correct?
   2) Is the condition of surrounding temperature abnormal overload?
   3) Is there any problem as like the temperature sensor separation or measurement value error?
   4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



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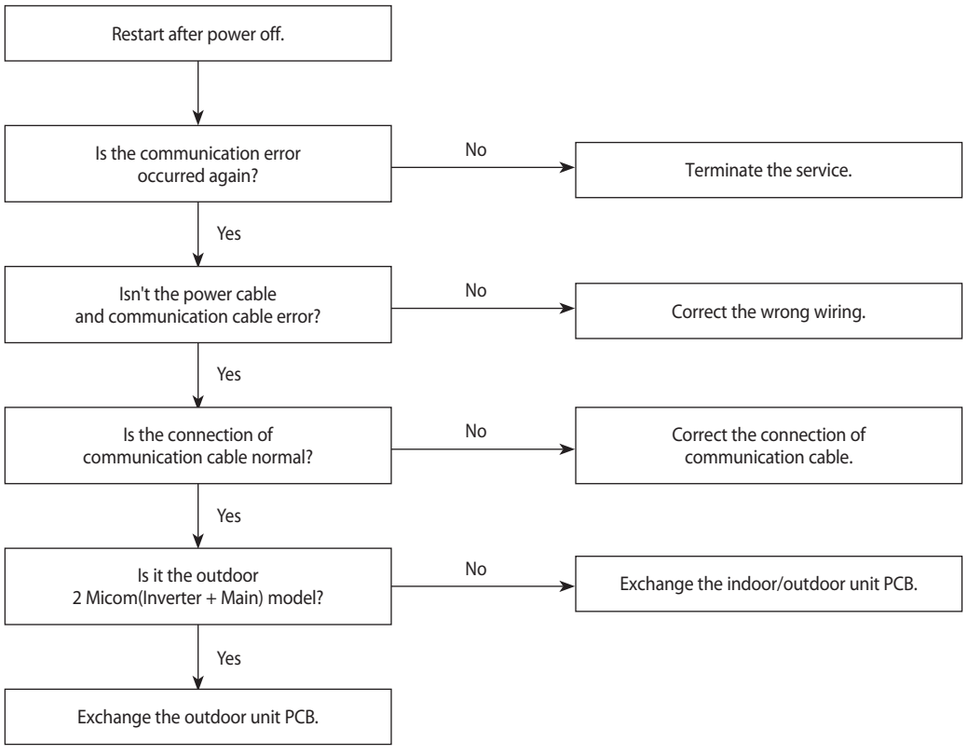
12-2-12 Communication error

1. Checklist :
   1) Is the communication cable between the indoor unit and outdoor unit connected correctly?
   2) Isn't the power cable and communication cable error?

2. Troubleshooting procedure



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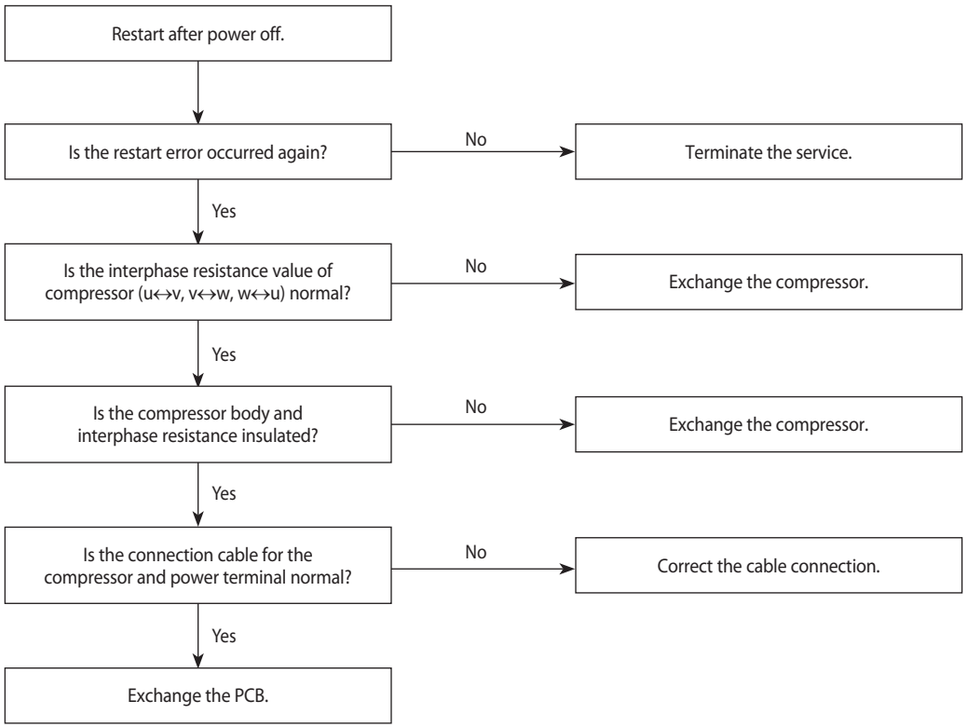
12-2-13 Compressor start error

1. Checklist :
   1) Is the connection of cable for the compressor and power?
   2) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

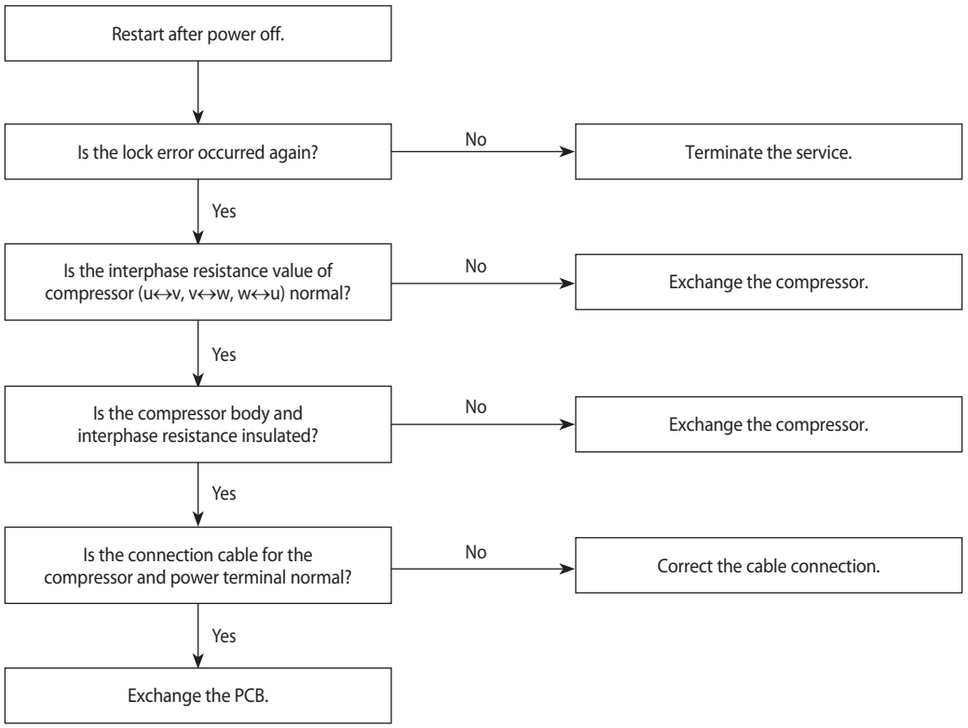


26005A(2)_1.indd 20 2006-04-14 ｿﾀﾈﾄ 5:05:16

12-2-14 Compressor lock error

1. Checklist :
   1) Is the connection of cable for the compressor and power?
   2) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

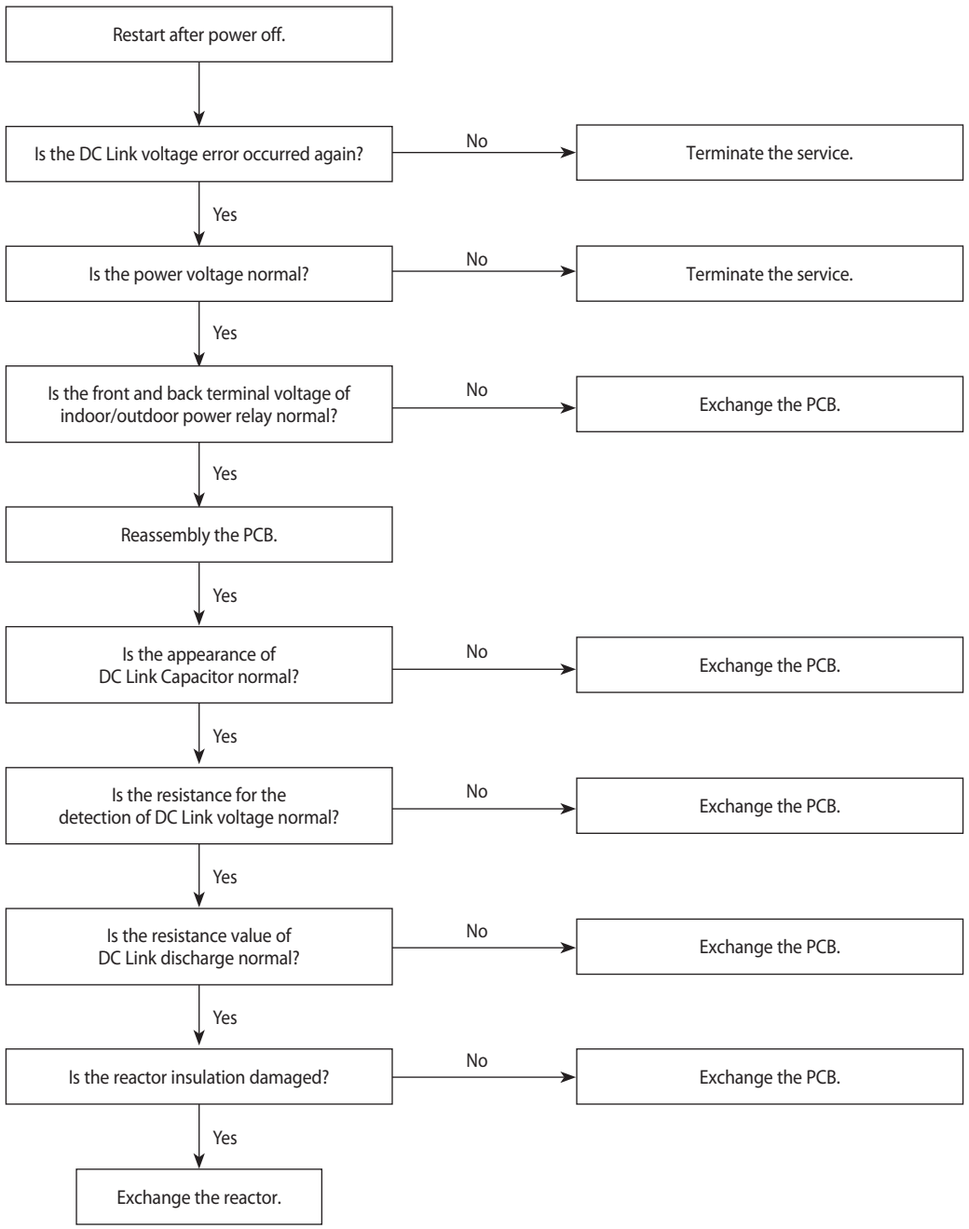


26005A(2)_1.indd 21 2006-04-14 ｿﾀﾈﾄ 5:05:16

12-2-15 DC Link Over voltage/ Low voltage error

1. Checklist :
   1) Is the power voltage normal?
   2) Is the voltage of front and back terminal of indoor(outdoor) power relay normal?
   3) Is the resistance value for DC Link voltage detection NORMAL?
   4) Is the resistance value of DC Link discharge normal?
   5) Is the appearance of DC Link Capacitor normal?

2. Troubleshooting procedure



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12-2-16 When the remote control is not receiving

1. Check if the connector was normally assembled.

2. Put the set in operation and check the voltage of No. 15(+) and No. 16(-) of the main PCB CN91 while operating the remote control. When the voltage descends below 3V, the assembly module PCB is normal and the main PCB is poor. Then replace the main PCB.

3. Replace the assembly display PCB because the module PCB is poor if the voltage between No. 15~16 of CN91 maintains 5V after the remote control starts operation.

12-2-17 The others

1. AC Line Zero Cross Signal OUT
   – Check the assembly condition of peripheral part of IC21, ZD21, ZD22 and D200 on the PCB.

2. Capacity miss match
   – Check again the indoor unit option code.

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12-3 PCB Inspection Method

12-3-1 Pre-inspection Notices

1. Check if you pulled out the AC power plug when you eliminate the PCB or front panel.
2. Don't hold the PCB side not impose excessive force on it to eliminate the PCB.
3. Don't pull the lead wire but hold the whole housing to connect or disconnect a connector to the PCB.
4. In case of outdoor PCB disassembly, check first the complete discharge of condenser (C103) after 30 seconds power off.

12-3-2 Inspection Procedure

1. Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken.
2. The PCB is composed of the 3 parts.
   - Indoor Main PCB Part : MICOM and surrounding circuit, relay, room fan motor driving circuit and control circuit, sensor driving circuit, power circuit of DC12V and DC5V, and buzzer driving circuit.
   - Display part : LED lamp, Switch, Remocon module
   - Outdoor Main PCB part : MICOM and surrounding circuit. IPM and PFC circuit and control circuit.
   - EMI PCB Part : Line filter and Noise Capacitor, Varistor

12-3-3 Indoor Detailed Inspection Procedure

No	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the electronic box. Check the PCB fuse.	1) Is the fuse disconnected?	• Over current • Indoor Fan Motor Short • AC Part Pattern Short of the MAIN PCB
2	Supply power. If the operating lamp twinkles at this time, the above 1)~3) have no relation.	Checking the power voltage.	
		1) Is the DB71 input voltage AC200V~AC240V?	• Power Cord is fault, Fuse open. Wrong Power Cable Wiring, AC Part is faulty.
		2) Is the voltage between both terminals of the C104 on the 2nd side of the transformer DC12V ±0.5V?	• Switching Trans or Power Circuit is faulty
		3) Is the voltage between both terminals of OUT and GND of IC19(KA78L05) DC5V ±0.5V?	• Power Circuit is faulty, Load Short

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12-3-4 Outdoor Detailed Inspection Procedure

No	Procedure	Inspection Method	Cause
1	Wait 30 seconds over after disconnecting the power cable Check the outdoor PCB.	1) Is C103 discharged? 2) Is the resistance of both terminals of C103 opened? 3) Is the fuse of EMI PCB normal? 4) Is the reactor wire connected?	• Over Current • Inner short of PCB
2	Check the Outdoor unit PCB.	1) Is R001 200ohm? 2) Does RY01 operate normally? (IC72 & 8:0V, 4:5V) 3) Is the fuse normal?	• Outdoor PCB Error • Relay(RY01) Error • IC72 Error
3	Check the LED lighting after power supply.	1) Normal: Red: Light On, Green: Flickering, Yellow: Light Off? 2) Is the voltage of C103 250V over? 3) Is the input of IC19 8V, and the output 5V?	• Inner short of outdoor PCB • Wrong assembly of outdoor PCB
4	Check the condition of indoor & outdoor connection cable.	1) Is the green LED light on once per second? 2) Is the indoor & outdoor connection cable connected in order? 3) Is the grounding wire connected to the both of indoor & outdoor unit?	• Wrong connection of Indoor/Outdoor wiring • Wrong assembly of outdoor communication circuit
5	Check the Comp Wire.	1) Is it connected red, blue, and yellow in order in counter clockwise. 2) Are the valve and its installation condition good? 3) Is the installation condition of outdoor unit?	• Wrong assembly • Installation condition is bad.

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12-4 Main Part Inspection Method

<table>
<tr><th>Part</th><th colspan="2">Breakdown Inspection Method</th></tr>
<tr><td rowspan="3">Room Temperature Sensor</td><td colspan="2">Measure resistance with a tester</td></tr>
<tr><td>Normal</td><td>At the normal temperature 37kΩ~ 8.3kΩ [19˚F~86˚F(-7˚C~+30˚C)] *Refer to Table 12-3-4.</td></tr>
<tr><td>Abnormal</td><td>∞, 0Ω . . . Open or Short</td></tr>
<tr><td rowspan="3">Room Fan Motor</td><td colspan="2">Measure the resistance between terminals of the connector (CN72) with a tester.</td></tr>
<tr><td>Normal</td><td>At the normal temperature [50˚F~86˚F(10˚C~30˚C)]
<table>
<tr><th>Compare terminal</th><th>Resistance</th><th>Remark</th></tr>
<tr><td>Yellow, Blue</td><td>198Ω ± 10%</td><td>Main</td></tr>
<tr><td>Yellow, Red</td><td>162Ω ± 10%</td><td>Sub</td></tr>
</table></td></tr>
<tr><td>Abnormal</td><td>∞, 0Ω . . . Open or Short</td></tr>
<tr><td rowspan="3">Stepping Motor</td><td colspan="2">Measure the resistance between the red wire and each terminal wire with a tester.</td></tr>
<tr><td>Normal</td><td>About 300Ω at the normal temperature [68˚F~86˚F(20˚C~30˚C)]</td></tr>
<tr><td>Abnormal</td><td>∞, 0Ω . . . Open or Short</td></tr>
</table>

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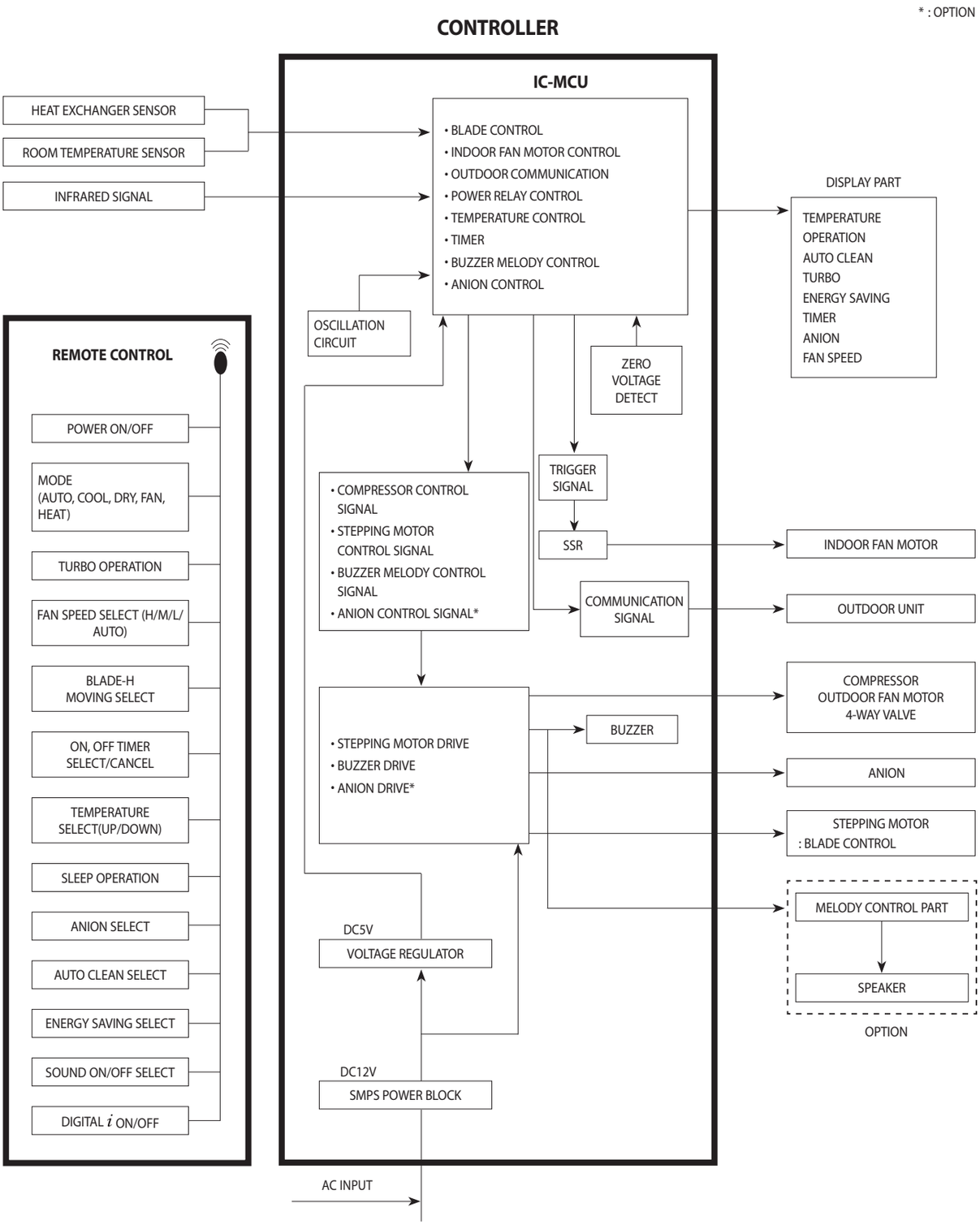
13. Block Diagram

13-1 Indoor Unit



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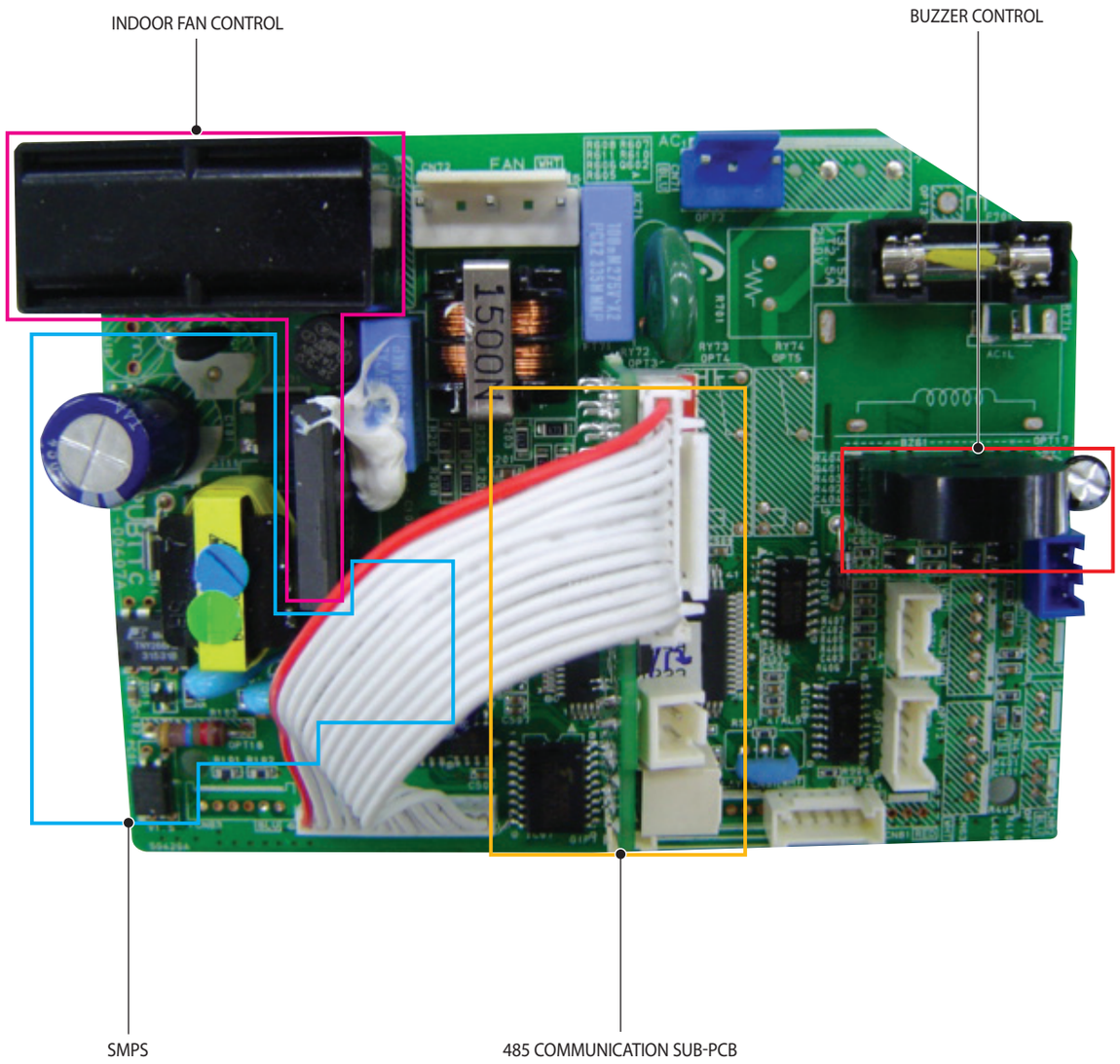

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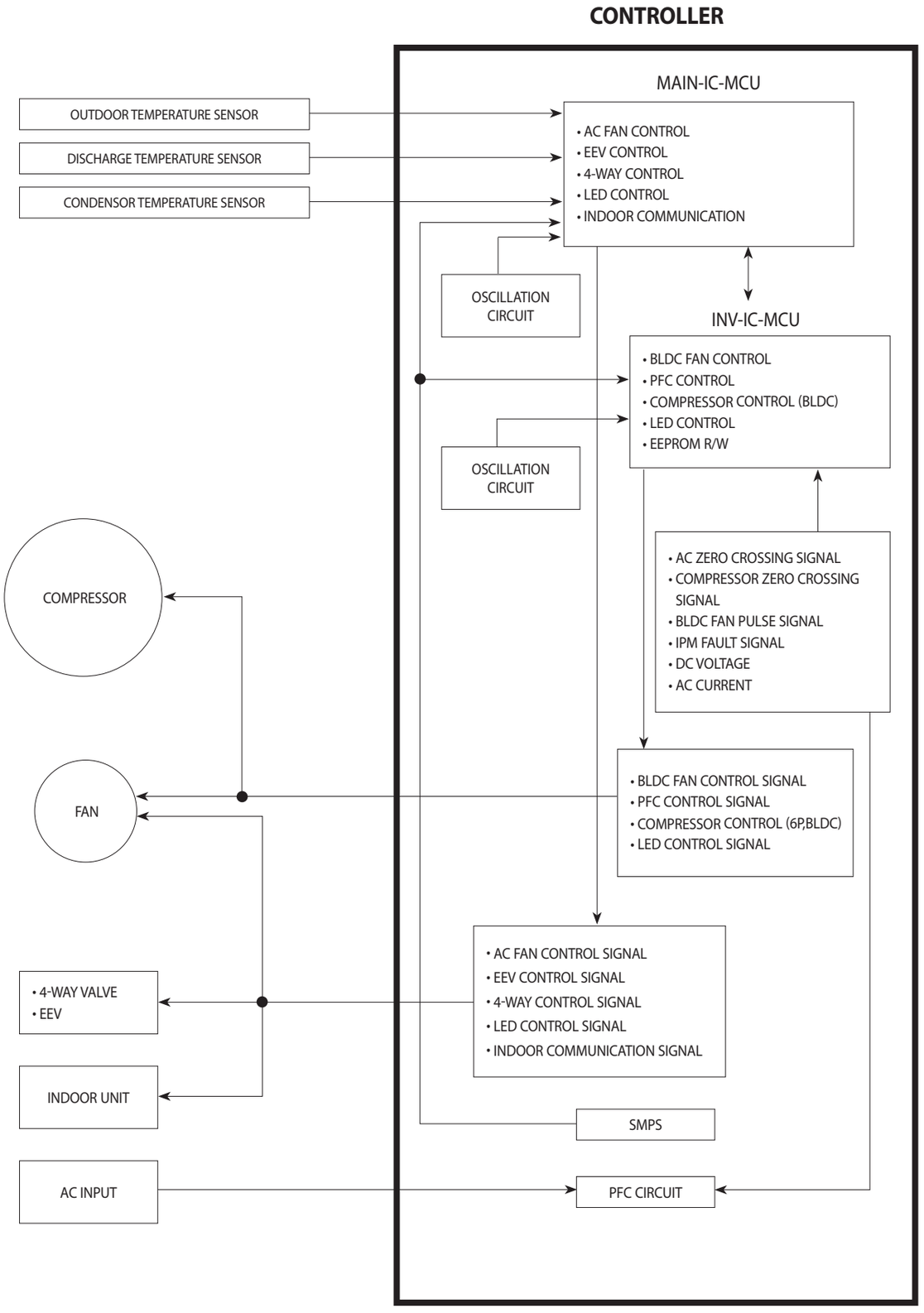
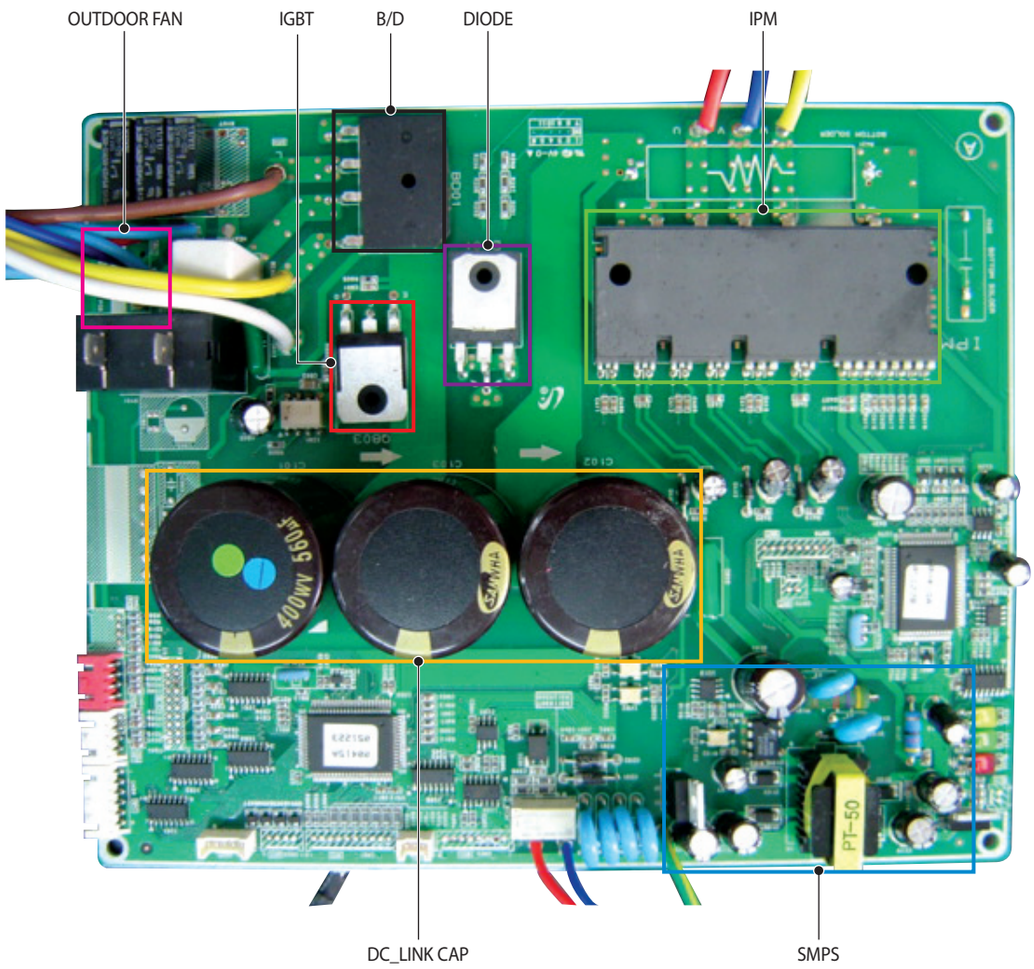
13-2 Outdoor Unit



26005A(2)_1.indd 30 2006-04-14 ソタネト 5:05:20

■ ✳✳18✳✳



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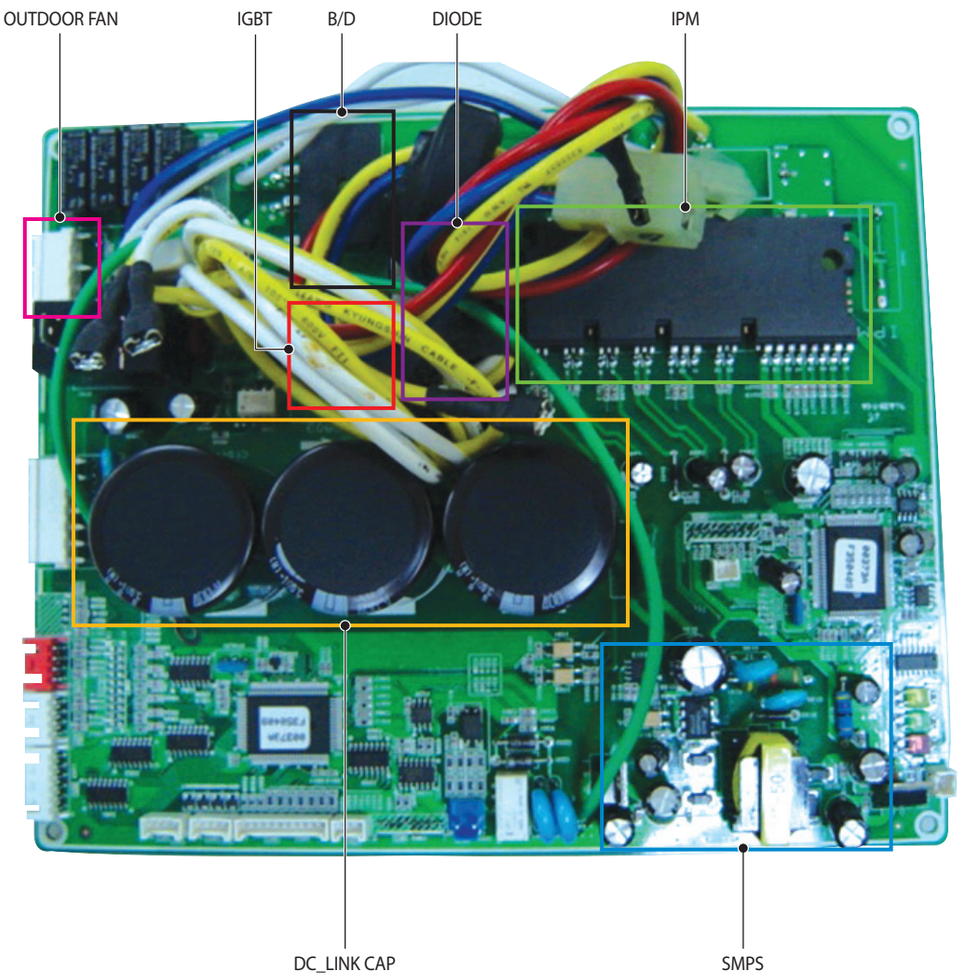
■ ✳✳24✳✳



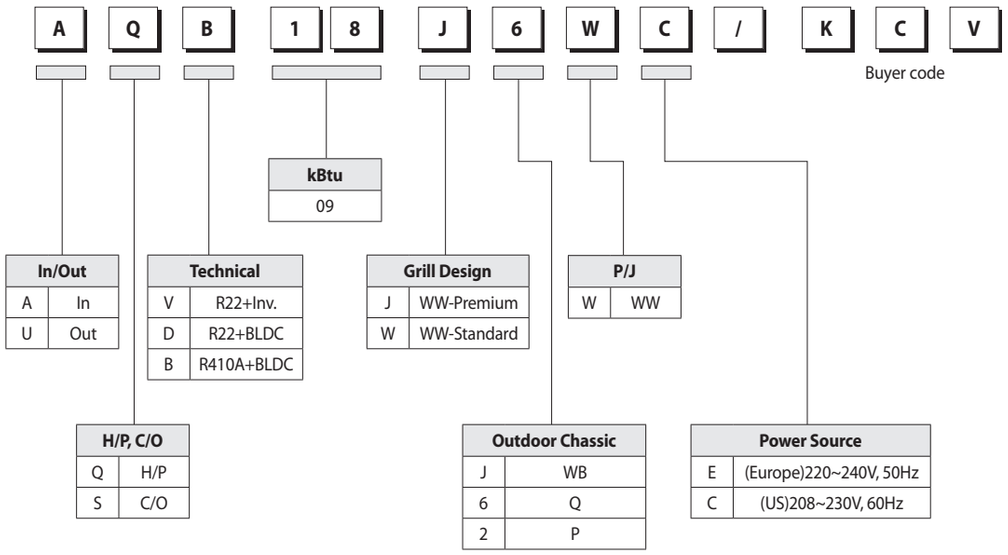
26005A(2)_1.indd 32 2006-04-14 ｿﾀﾈﾄ 5:05:26

14. Reference Sheet

14-1 Index for Model Name

✳ Project model code for New Built-in Product.

Model Code



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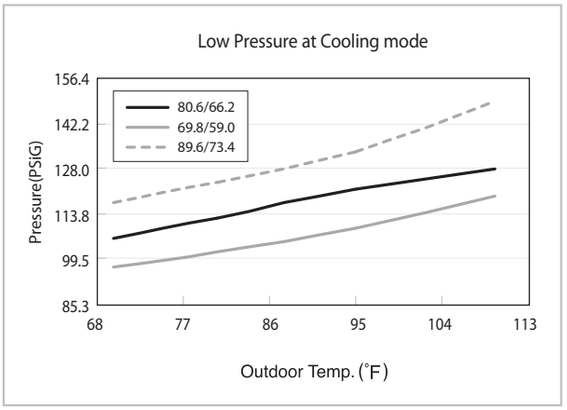
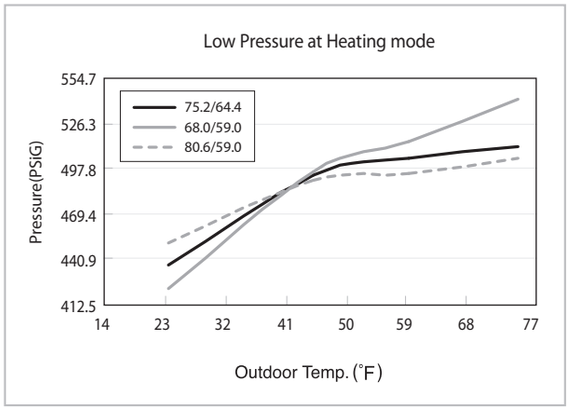
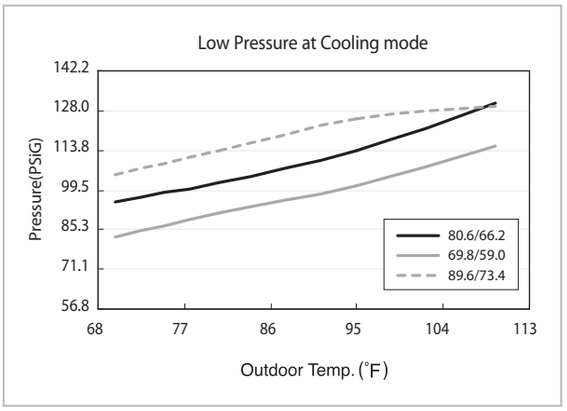
14-2 Pressure Graph

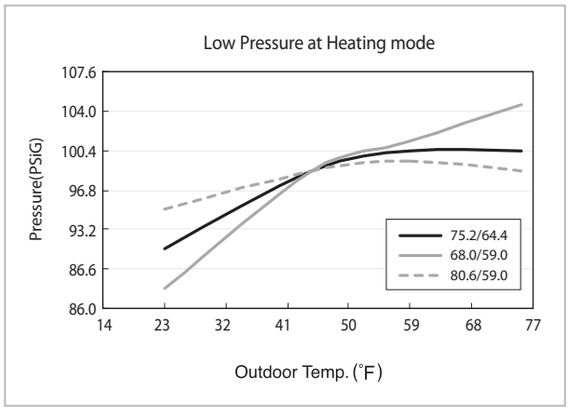
■ ✳✳18✳✳





■ ✳✳24✳✳





14-3 Pressure & Capacity mark

■ Power/Heat

W	cal/s	kcal/h	Btu/h	HP	kg·m/s	lb·m/s
1	0.23885	0.85985	3.4121	0.001341	0.10197	0.73756
4.1868	1	3.6	14.286	0.0056146	0.42693	3.088
1.163	0.27778	1	3.9683	0.0015596	0.11859	0.85778
0.29307	0.06999	0.252	1	$3.9302x10^{-4}$	0.029885	0.21616
745.7	178.11	641.19	2,544.4	1	76.04	550
9.8067	2.3423	8.4322	33.462	0.013151	1	7.233
1.3558	0.32383	1.1658	4.6262	0.0018182	0.13826	1

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14-4 Q & A for Non-trouble

Classification	Class	Description
Cooling	**Q**	**The cooling is weak.**
	A	When it is hot outside, its cooling capacity decreases due to the increase of the ambient temperature. When the dust filter gets blocked or warm outside air gets in, the cooling capacity will decrease. So, make sure to clean the dust filter frequently, prevent heat loss by closing the doors and insulate the cooling area by using curtains, blinds, shades or window tinting.
	Q	**The cooling is good generally. But, it gets weak when it is considerably hot.**
	A	It occurs when the outdoor unit is exposed to direct sun light and heat-up air is not ventilated well.So, set up a sunblind over the outdoor unit and keep stuff away from the unit to increase the ventilation. When the cooling capacity decreases during a heat wave, clean the heat exchanger of the outdoor unit or spray some cold water to the heat exchanger to increase the cooling capability.
	Q	**The cooling is weak. Does it need refrigerant charging?**
	A	It is not correct charging refrigerant regularly. Except that you have moved in several times or the connection pipes are broken, the refrigerant does not run low. So, when refrigerant is additionally charged, it could be costly and cause a product's failure. When the refrigerant leaks, all of it will escape in a short time resulting in cooling failure and no water coming out of the drain hose. So, if water comes out from the drain hose, it indicates the normal operation of the product and it does not need refrigerant charging.
	Q	**It fails to do cooling.**
	A	When the air conditioner is set to Ventilation or the desired temperature is set higher than the current temperature, it fails to do cooling. In this case, select Cooling or set the desired temperature lower.
Leakage	**Q**	**It floods the floor.**
	A	Place the drain hose properly. When it is not placed properly, the drain water would flow back flooding the floor. So, straighten out the drain hose for the water to be drained well.
	Q	**Water drips at the drain connection (service valve) of the outdoor unit.**
	A	When a glass bottle is taken out of the refrigerator, moisture gets condensed on its surface due to the temperature differences. The same principle applies to the air conditioner. When cold refrigerant goes through the copper tube, moisture gets condensed on the surface of the tube and the connection areas. To prevent the water condensation, the pipes are insulated. But, the connection areas of the outdoor unit are not insulated for the purpose of maintenance or repair, and water gets condensed due to the temperature differences and drips down. Generally, it evaporates right away. But, when it drips much during muggy days, put a water pan on the floor.
	Q	**It leaks even though a drain pump is used.**
	A	It occurs when the drain pump is plugged out or it is out of order. Check the power of the drain pump and the position of the drain hose, and when the pump is faulty, contact the drain pump manufacturer. Samsung Electronics do not manufacture drain pumps. So, we are not able to correct the drain pump problems.
Smells	**Q**	**Whenever the air conditioner is turned on, it irritates my eyes and gives me a headache.**
	A	There are no components in the air conditioner irritating the eyes and sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, it occurs at a interior renovated place, a pharmacy, a gasoline handling place, a tire shop, a second-hand book shop or an electronic component handling place; when its chemical or musty smells are sucked in and sent out, it can be misled that the air conditioner generates them. So, find and root out the problem or refresh the room frequently.

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Q & A for Non-trouble(cont.)

Classification	Class	Description
Smells	Q	**Whenever the air conditioner is turned on, it stinks.**
	A	There are no components in the air conditioner sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, when the drain hose is taken out to the washing room or there are sources of smells such as a diaper bin, a shoe shelf or a socks bin, bad smells generate. Also, it occurs where glass cleaners or air fresheners are used; when they are sucked in interacting with dusts and moistures inside, bad smells generate. These kinds of organic materials noxious to human bodies. So, we recommend against the use of them.
	Q	**Whenever the air conditioner is turned on, it smells sour.**
	A	When the room is papered recently, its paste smells would be sucked inside. Also, when the air conditioner is installed in the study room of young boys loving sweat-generating activities such as the basketball, excessive sweats evaporate and get sucked into the air conditioner resulting in bad smells. So, find and root out the problem or refresh the room frequently.
	Q	**Whenever the air conditioner is turned on, it smells musty.**
	A	It is due to the improper keeping of the product after its use. When keeping the product, dry up the inside with the operation of Ventilation to prevent must. When the product is kept without drying up the inside with Ventilation, mold would grow inside resulting in must. So, open the windows and switch on the Ventilation function to get rid of the saturated smell inside.
	Q	**Whenever the air conditioner is turned on, it sends out bad smells such as stale smells.**
	A	It occurs generally when there are pet animals in the house. Their smells stay at the same place. But, when the air conditioner is turned on, the air gets circulated resulting in the circulation of the smells. So, find and root out the problem or refresh the room frequently.
	Q	**It sends out bad smells.**
	A	When the air filter is filthy, it could send out bad smells. So, clean the filter and ventilate the room with the windows open while operating the Ventilation function.
Operation	Q	**It won't start.**
	A	There is a power failure or it is plugged out. Also, check if the power distribution panel is switched off.
	Q	**It goes off during operation.**
	A	When the hot air does not escape properly, it goes off during operation. It occurs when it does not ventilate properly because the outdoor unit is covered, the back of the outdoor unit is blocked by a cardboard or a plywood panel, and the front of the outdoor unit is blocked by the closed window or other obstacles. Clear the above obstacles from the outdoor unit.
	Q	**It generally works properly. But, when it's considerably hot, it goes off during operation.**
	A	It occurs when the outdoor unit is exposed to direct sunlight and the hot air does not escape properly. Set up a sun blind over the outdoor unit and clear the neighboring obstacles from the outdoor unit to provide good ventilation. When it goes off frequently during a heat wave, it would prevent the turn-off and increase the cooling capacity cleaning the outdoor unit or spraying some water to the heat exchanger.
	Q	**The remote controller won't operate.**
	A	When the batteries run out or the transmitter or receiver of the remote controller is blocked by obstacles, change the batteries or keep the obstacles away from the controlling area. Also, the remote controller may not work under intensive light from a 3-wavelength lamp or a neon sign due to the EMI. In this case, take the remote controller closer to the receiver.

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Classification	Class	Description
Installation	Q	**Who installs the air conditioner? (Relocation/Re-installation)**
	A	When relocating or re-installing the air conditioner, make sure to contact Samsung Electronics Service Center or Authorized Service Agent and have them to do the job. (If not, it could cause personal injury or product damage.) The cost for the relocation/re-installation of the air conditioner is subject to the customer's expense. There is a cost table. But, our service engineer needs to visit to total up the cost correctly. When you move in, make sure to contact Samsung Electronics Service Center or Authorized Service Agent in advance to streamline the process.
	Q	**Is it possible to install the outdoor unit outside?**
	A	It is possible to install it at a designated place in the apartment or on the rooftop nearby. But, it's illegal hanging an angle iron case with the outdoor unit in it outside the apartment. Also, it is illegal obstructing passers-by with the outdoor unit installed outside.
	Q	**What can be done to install the outdoor unit facing the road because it is a commercial building?**
	A	The following is an excerpt from Building Code going into effect from JUNE 1st 2005. "The exhaust pipe of a cooling or ventilation facility installed in a building adjacent to the streets of commercial or residential areas shall be installed higher than 2 m to prevent the exhaust air from blowing directly to passers-by and the current facilities shall be corrected by MAY 31st 2005." So, please install it higher than 2 m or not to blow the hot exhausting air directly to passers-by.
	Q	**What about installing a windscreen during installation not to blow hot air directly to passers-by?**
	A	When the hot air from the front of the outdoor unit is blocked, the product's performance will be affected and it will fail to operate properly. So, keep it at least 300mm away from its surrounding walls and give it good ventilation.

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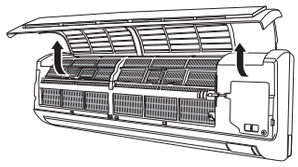
14-5 Cleaning/Filter Change

14-5-1 Cleaning your Air Condition

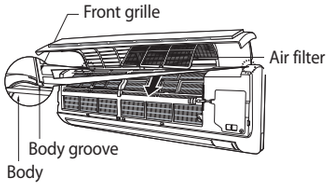
For the best use of your air conditioner, you must clean it every 2 weeks to remove the dust accumulated on the air filter.

• Before cleaning your air conditioner, check if you have turned off the circuit breaker.

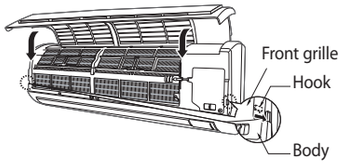
1. Open the upper front grille by pulling the lower right and left tabs of the grille.



2. Pull air filters out of each tab of the grille.
3. Remove all dust on the air filters with a vacuum cleaner or brush.
4. When you finish, insert air filters by fixing them to each tab of the grille.
5. To close the front grille, fix it to hooks and push down the lower right and left tabs of the grille.



6. Clean the front grille with a damp cloth and mild detergent (do NOT use benzene, solvents or other chemicals).



Note : • If you have not used the air conditioner for a long time, select the Fanmode for 3 to 4 hours to dry the inside of the air conditioner.

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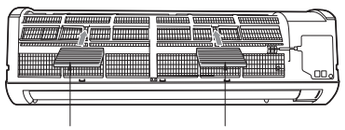
14-5-2 Cleaning Deodorizing and Bio Filter (Option)

There are Anti-Allergy and Deodorizing filters inside your air conditioner.
They remove odours and dust in your room. You should clean the filters every 3 months.

1. Open the upper front grille by pulling the lower right and left tabs of the grille.
2. Pull out the deodorizing and Bio filter.
3. Wash the filters with clean water, then dry them in the shade.
4. Insert the filters in their place.

   Note : • You can change the position of filters with each other.

5. Close the front grille.



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14-6 Installation

14-6-1 Before Installation

Keep the air conditioner outlet and inlet free from its surroundings.
In case of installation, keep the symmetry and fix it to prevent vibration.
The pipe length shall meet the standard as far as possible.

14-6-2 Installation Procedure

■ Location

Install the product in an area to guarantee the best cooling effect, convenience of piping and electric work, and inexistence of vibration or wind.

■ Wall Drilling

Drill the wall downward in a diameter of 60 to 65mm.

■ Fixing Indoor Unit & Outdoor Unit

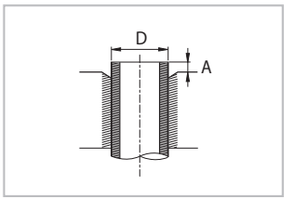
Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ Pipe Spooling & Connecting

You shall cut the pipe with a pipe cutter and grind all the burrs of the cut surface.
Pipe expansion may continue until the pipe surface becomes uneven or torn apart.
Be sure to use a torque wrench to tighten pipes or flare nuts.

<Torque & Depth>

Outer Diameter(D)	Torque(ft·lb/kgf·cm)	Depth(A)
1/4 inch(6.35mm)	10.1~12.3/140~170	1/16 inch(1.3mm)
1/2 inch(12.7mm)	27.5~30.4/380~420	1/16 inch(2.0mm)
5/8 inch(15.88mm)	31.8~34.7/440~480	1/8 inch(2.2mm)



■ Leak Test

Put an inert gas like nitrogen in the outdoor unit pipe and put soap bubbles or other test liquids on the pipe surface for the leak test.

■ Drain Hose Connecting

Install the drain hose downward to drain water naturally. Be sure to pour water into the hose to check if it drains well.

■ Electric & Earth Work

Electric and earth work shall meet the "Electric Facility Technology Standard" and the "Internal Wire Regulation" of the Electric Business Laws.

■ Inspection & Trial Run

Upon completion of the tests, you shall make a trial run while you explain the main functions of the air conditioner to finish the installation.

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14-7 Installation Diagram of Indoor Unit and Outdoor Unit

14-7-1 Air-Purge Procedure

1) Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.

2) Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port as shown at the figure.

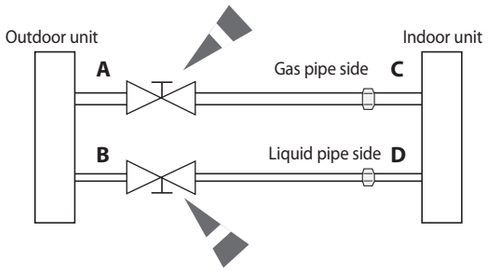
3) Open the valve of the low pressure side of manifold gauge counter-clockwise.

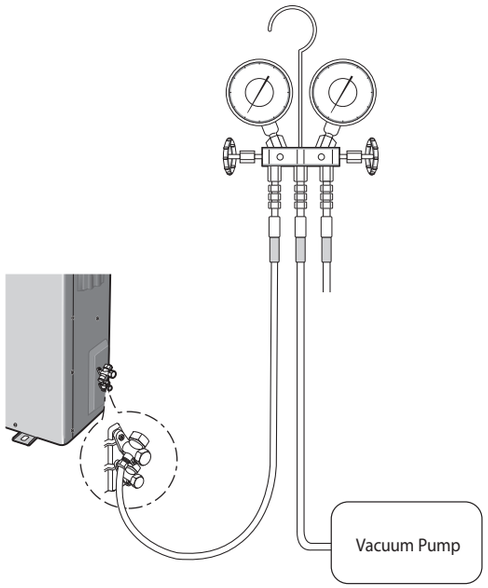
4) Purge the air from the system using vacuum pump for about 30 minutes.
   - Make sure that pressure gauge show -0.1MPa(-76cmHg) after about 30 minutes.
   - This procedure is very important in order to avoid gas leak.
   - Turn off the vacuum pump.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Remove the hose of the low pressure side of manifold gauge.

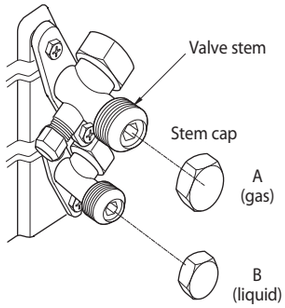
5) Set valve cork of both liquid side and gas side of packed valve to the open position.

6) Mount the valve stem nuts and the service port cap to the valve, and tighten them at the torque of 183kgf•cm with a torque wrench.

7) Check for gas leakage.
   - At this time, especially check for gas leakage from the 3-Way valve's stem nuts, and from the service port cap.







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14-7-2 “Pump down” Procedure

Pump down will be carried out when an evaporator is replaced or when the unit is relocated in another area.

1) Remove the caps from the 3-Way valve and the 3-Way valve.

2) Turn the 3-Way valve clockwise to close and connect a pressure gauge (low pressure side) to the service valve, and open the 3-Way valve again.

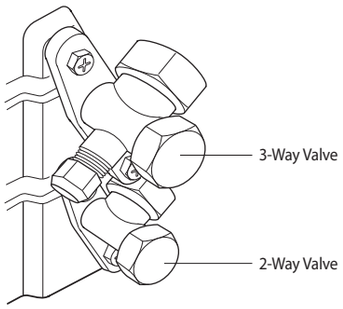
3) Set the unit to cool operation mode. (Check if the compressor is operating.)

4) Turn the 3-Way valve clockwise to close.

5) When the pressure gauge indicates "0" turn the 3-Way valve clockwise to close.

6) Stop operation of the air conditioner.

7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

- Refer to this procedure when the unit is relocated.
- Carry out the pump down procedure (refer to the details of 'pump down').
- Remove the power cord.
- Disconnect the assembly cable from the indoor and outdoor units.
- Remove the flare nut connecting the indoor unit and the pipe.
- At this time, cover the pipe of the indoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Disconnect the pipe connected to the outdoor unit.
  At this time, cover the valve of the outdoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Make sure you do not bend the connection pipes in the middle and store together with the cables.
- Move the indoor and outdoor units to a new location.
- Remove the mounting plate for the indoor unit and move it to a new location.

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